SHARP®

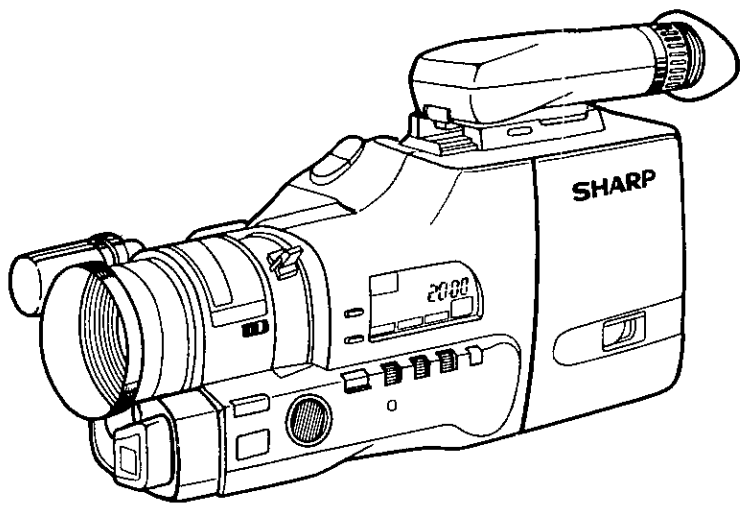
OPERATION MANUAL
BEDIENUNGSANLEITUNG
MODE D'EMPLOI
BRUKSANVISNING
MANUALE DI ISTRUZIONI
MANUAL DE MANEJO
GEBRUIKSAANWIJZING
MANUAL DE OPERAÇÃO

VHS C PAL CAMCORDER

HQ HIGH QUALITY

MODEL

VL-C750S



This apparatus complies with requirements of BS 800 and EEC directive 82/499/EEC.

Dieses Gerät stimmt mit den Bedingungen der EG-Richtlinien 82/499/EWG überein.

Cet appareil répond aux spécifications de la directive CEE 82/499/CEE.

Dit apparaat voldoet aan de vereiste EEG-reglementen 82/499/EEG.

Apparatet opfylder kravene i EF direktivet 82/499/EF.

Questo apparecchio è stato prodotto in conformità alle direttive CEE 82/499/CEE.

Este aparato cunple las especificaciones de la directriz de la CEE 82/499/CEE.

Este aparelho responde às especificações da directiva 82/499/CEE.

Αύτή ή ουοκευή τηοει τίς προσιαγραφές τῆς EEC ντιρεκτίβα 82/499/EEC.

OPERATION MANUAL

ENGLISH

WARNING:

TO PREVENT SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

This equipment should be used with DC 9.6V ⎓ only or recommended AC adaptor.
CAUTION:
To prevent electric shocks and fire hazards, do NOT use any other power source.

CAUTION:
To prevent shock, do not open the cabinet. No user serviceable parts inside. Refer servicing to qualified dealer or service centre.

Congratulations on a Wise Decision!

With so many brands available, the choice was difficult.
But after enjoying the top quality and high performance of this Sharp Camcorder, you'll know you were right.

The purchase of this Camcorder will further enhance your enjoyment of television viewing. Before operating, please read this operation manual to get the most out of your Sharp Camcorder. Also, please save it for future reference, since it will be useful if you have any trouble during operation.

FEATURES

1. Maximum of 60 minutes recording time in LP mode
2. 1/2″ CCD image sensor with f1.6, 12× variable speed zoom with macro focus
3. Fine Video Insert Editing with flying erase head and Audio Dubbing
4. One-Touch Full Auto Camera Recording System
   — Automatic Focus, Iris, and White Balance
   — Battery, Alarm, Tape-end Alarm, Dew indicator in LCD Display
5. 1/1000 High Speed Electronic Shutter for blur-free still images
6. Self timer for Camera Recording
7. HQ (High Quality) picture
8. 3-way power source with AC, battery, and car battery

Important

Audio-visual material may consist of copyrighted works which must not be recorded without the authority of the owner of the copyright. Please refer to relevant laws in your country.

Power Supply

This unit can be operated by connecting it to either the AC adaptor, battery pack or optional car battery cord. The AC adaptor incorporates the AUTO VOLTAGE (AC 110-240V, 50/60Hz) function.

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PRECAUTIONS

READ THE SAFETY AND OPERATING INSTRUCTIONS before operating this Camcorder.
FOLLOW INSTRUCTIONS AND HEED ALL WARNINGS on this Camcorder and in this manual.

For safety, strictly observe the following

- Do not open the case.
- Take care to avoid flammables or other liquids and metal objects from entering the unit. Should this happen, switch the power off and have the Camcorder checked by qualified personnel.
- Do not disassemble or attempt to modify the unit.
- Do not operate the Camcorder during lightning storms. Unplug power cables of any connected equipment.

Avoid using the Camcorder under the following conditions

- Places of extreme humidity or excessive dust.
- Near electrical appliances generating strong magnetic fields (fluorescent lights, televisions, speakers).
- Steamy or sooty places such as near a cooking stove.
- Excessive mechanical shock or vibration.
- Extremely hot locations such as near heating.
- Wet locations, such as near swimming pools, bathtubs and the like.

Do not expose the Camcorder to extremely high or low temperatures for long periods

- Never leave this Camcorder in direct sunlight, in a closed car during summer or near a heater — this will most likely deform the exterior and damage the internal parts of the Camcorder.
- Do not store the Camcorder in places over 60°C.
- Do not use the Camcorder in places over 40°C.
- Do not use the Camcorder in places below 0°C.
- Do not use the Camcorder in humid places over 80% RH.
  Store the Camcorder in a location that stays between −20°C and 60°C.

Take extra care when recording outdoors

- Do not drop or allow it to strike any hard or rough surface. Protect from damage during transportation.
- Prevent the Camcorder from getting wet.
- At the beach, keep away from salt water or spray and prevent sand from entering the Camcorder.
- Avoid aiming the lens at extremely bright objects like the sun or other strong lights.
- **Do not direct the viewfinder eyepiece at the sun.**
- Stop using the Camcorder during lightning storms.

BEFORE DISCONNECTING A POWER SOURCE, ALWAYS SLIDE THE OPERATE SWITCH OFF — THE OPERATE INDICATOR WILL GO OFF.

Handling the Camcorder

- Protect the microphone from damage.
- Keep the Camcorder horizontal during use, otherwise the tape may become slack and be damaged.
- **Do not carry the Camcorder by the viewfinder. Loop the strap over your arm — should the Camcorder accidentally slip out of your hand, you will avoid damaging it.**
- Cap the lens after use. Remember to switch the power off.
- Do not touch the focus ring while using Autofocus.
- Before attaching any filter to the lens, switch to manual focus or switch the power off and remove the lens hood.

Cleaning the Camcorder

- Detach the battery pack or disconnect the power before cleaning the Camcorder.
- Remove dust with a soft cloth. Use a soft cloth moistened with mild detergent to remove persistent dirt.
- Do not use strong cleaning agents such as benzine, thinner or alcohol — they may damage the exterior.
- Keep the lens, viewfinder and Autofocus window clean. Clean the lens by first blowing it free of dust, then gently wipe it with a soft brush or lens cleaning paper moistened with lens cleaning fluid.

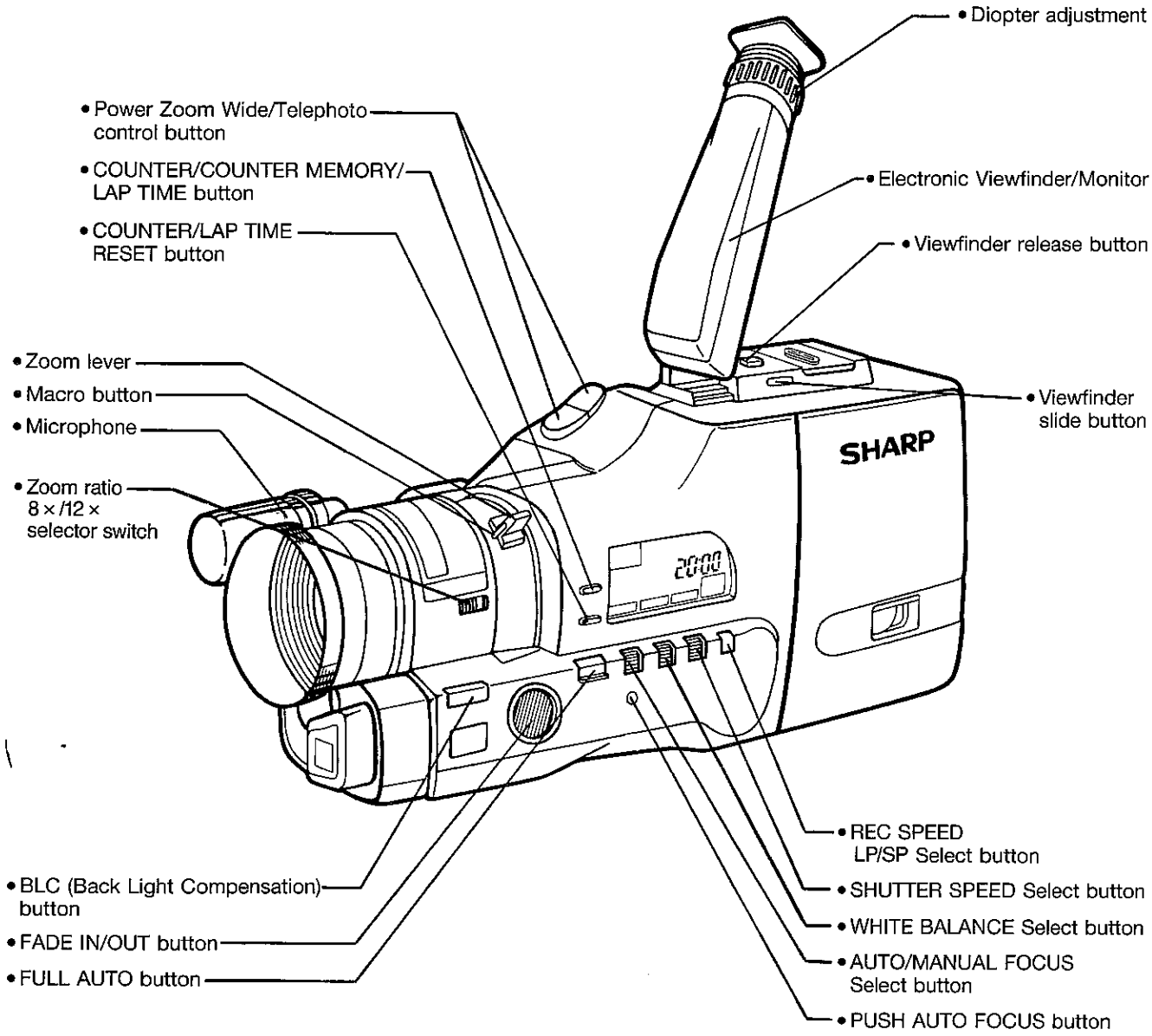
Beware of Moisture Condensation

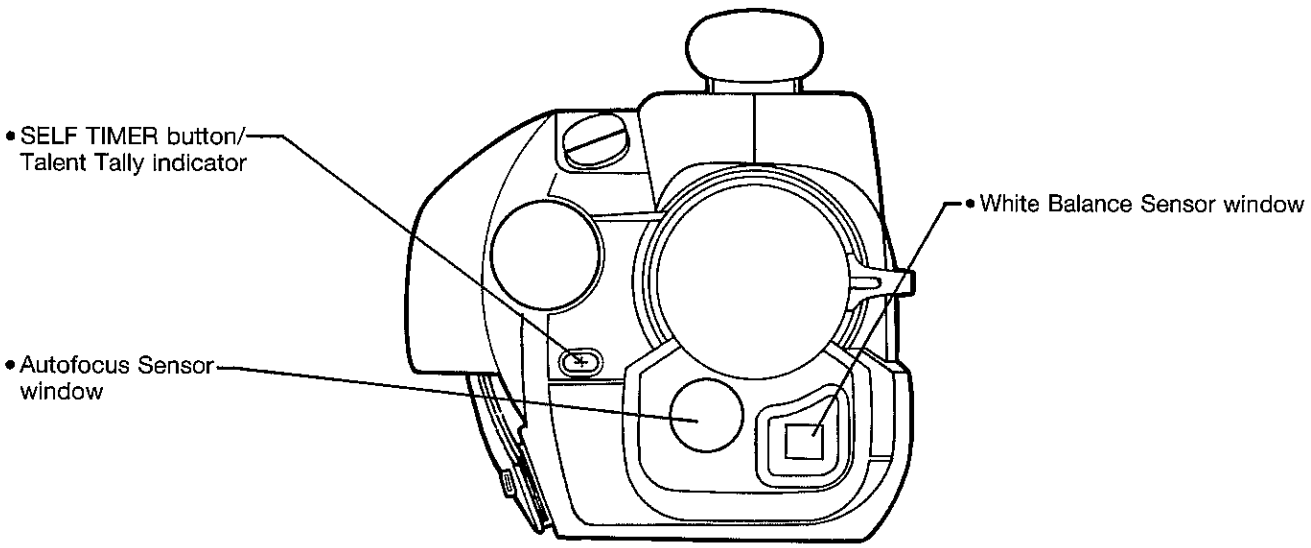
If you pour cold water into a glass, condensation will form. If you take your Camcorder into a warm room after it has been in a cold room or outdoors, the same thing will happen. This moisture or dew, can cause severe damage to the video tape and Camcorder.
When dew forms on the head drum, the DEW warning blinks on the LCD display and the Camcorder will immediately stop. Condensation can also form on the lens, Autofocus Sensor window or White Balance Sensor window and give poor results.

- When the DEW warning blinks in the LCD display, slide the OPERATE switch on and make sure the DEW indicator goes out. Wait several hours before resuming use.
- When taking the Camcorder from a cold to a warm place, such as in winter, place the Camcorder in a sealed plastic bag to prevent condensation until the Camcorder warms up to room temperature.

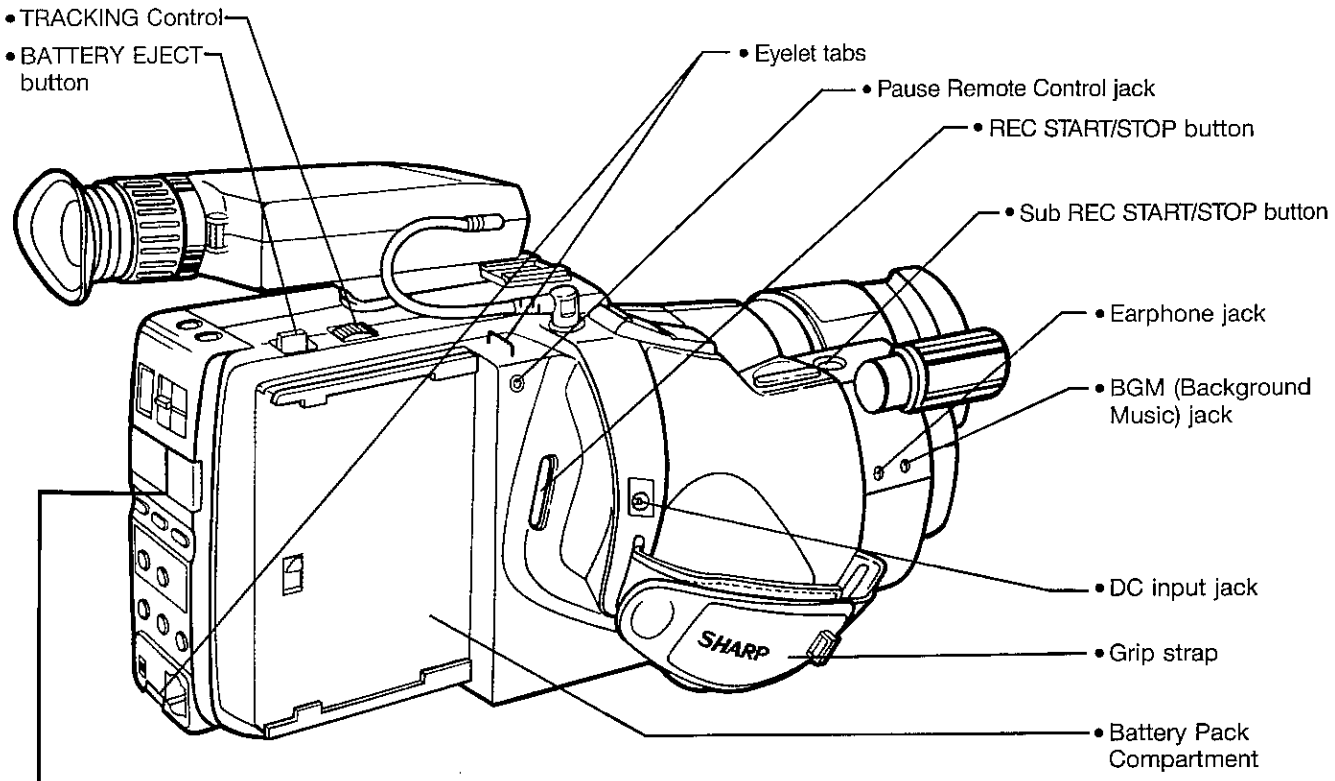
MAJOR OPERATING COMPONENTS AND THEIR FUNCTIONS

FRONT VIEW

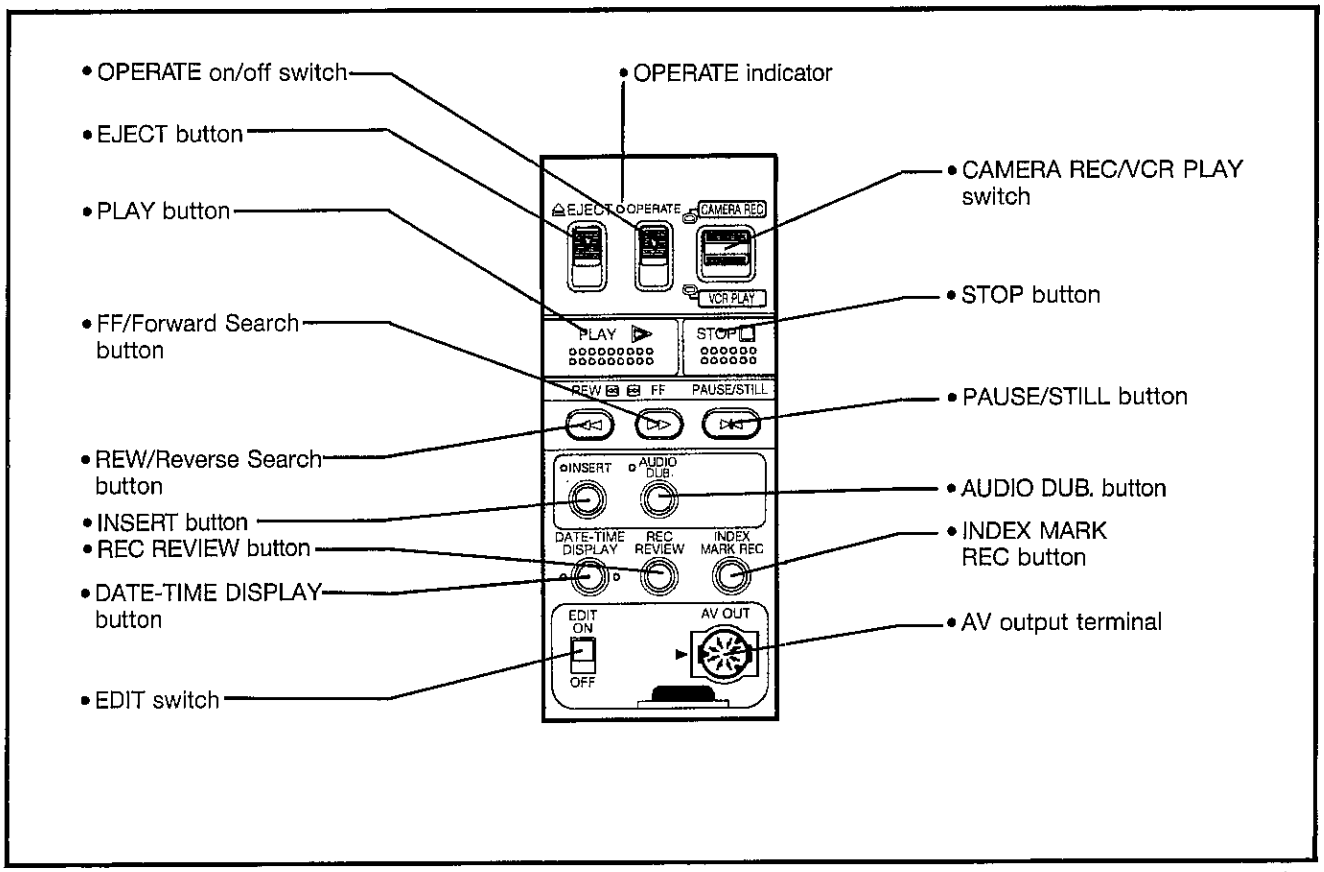

• Diopter adjustment
• Power Zoom Wide/Telephoto control button
• COUNTER/COUNTER MEMORY/ LAP TIME button
• COUNTER/LAP TIME RESET button
• Electronic Viewfinder/Monitor
• Viewfinder release button
• Zoom lever
• Macro button
• Microphone
• Viewfinder slide button
• Zoom ratio 8 × /12 × selector switch
SHARP
2000
• REC SPEED LP/SP Select button
• SHUTTER SPEED Select button
• WHITE BALANCE Select button
• AUTO/MANUAL FOCUS Select button
• PUSH AUTO FOCUS button
• BLC (Back Light Compensation) button
• FADE IN/OUT button
• FULL AUTO button



REAR VIEW



CONTROL PANEL



FRONT VIEW

•Power Zoom Wide/Telephoto control button
Maximum telephoto with T (Tele) depressed (this is also called "zoom-in" or "zoom-up"). Maximum wide angle with W (Wide) depressed (this is also called "zoom-out" or "zoom-down").
You can vary the speed of the zoom from 6 seconds to about 25 seconds by the degree of finger pressure on the Zoom buttons.

•COUNTER/COUNTER MEMORY/LAP TIME button
Used to select among Counter, Counter Memory, and Lap Time modes being indicated in the viewfinder and LCD display.

•COUNTER/LAP TIME RESET button
Used to reset the Counter and Lap Time being indicated in the viewfinder and LCD display.

•Zoom lever
Use this lever to manually zoom in and out on your subject.

•Macro button
Use this control for shooting subjects positioned less than 1m from the Camcorder. (Autofocus does not function at this distance.) Press the MACRO button continuously while moving the Zoom lever to the "MACRO" position for focusing.

•Zoom ratio 8 × /12 × selector switch
Depending on your recording purpose, the zoom ratio can be set to 8 times or 12 times by using the Zoom ratio 8 × /12 × selector switch.

•Microphone
This microphone is detachable and replaceable with a commercially available 3.5mm diameter battery-powered external microphone.

•BLC (Back Light Compensation) button
If the subject is darker than the background, the recorded subject may appear too dark and undefined. In such a case, this button compensates for a dark and undefined subject only while it is held down.

•FADE IN/OUT button
See page 35.

•FULL AUTO button
See page 17.

•Electronic Viewfinder/Monitor
Displays the photographic subject. Also functions as a convenient black-and-white monitor for playback of recorded material.

•Diopter adjustment
Use this control to adjust the viewfinder focus to your eyesight.

•Viewfinder slide ("PUSH") button
While held down, this button allows the viewfinder to move forward along its slide mount.

•Viewfinder release button
Press this button and the Viewfinder slide (PUSH) button together. This allows the viewfinder to be removed when pulled toward you.

•REC SPEED LP/SP Select button
Used to set recording to the LP (Long Play) or SP (Standard Play) mode. Recording time in the respective modes is as follows (VHS-C tape EC-30):
LP mode..... 60 min.
SP mode..... 30 min.

•SHUTTER SPEED Select button
With this button you can select between the "STANDARD" and "1/1000" sec. shutter speeds. With the "1/1000" mode, even fast moving objects will appear clear in the recording.

•WHITE BALANCE Select button
Used to set the white balance to AUTO, indoor light, fluorescent lamp or sunlight.

•AUTO/MANUAL FOCUS Select button
Set to "AUTO", the Camcorder will automatically focus on the subject even if it is moving.
(Remember to use the macro focus feature to focus on subjects less than 1.1m away.)
If, however, autofocus does not function because of the prevailing shooting conditions, set this switch to "MANUAL" and focus manually.

•PUSH AUTO FOCUS button
In the MANUAL focus mode, the AUTO FOCUS will function while this button is pressed. Once focused, release this button to freeze the focal point.

•SELF TIMER button/Talent Tally indicator
The Talent Tally indicator will light up when the Camcorder begins recording, enabling the subject do determine whether the unit is recording or not. The SELF-TIMER button and Talent Tally indicator share the same function. When the button is pressed in the REC Pause mode, the indicator will blink for 10 seconds before the Self-timer starts recording.

•Autofocus Sensor window

•White Balance Sensor window

REAR VIEW

- **TRACKING Control**
  Adjust tracking to reduce noise bars and black streaks that may occur in the picture when playing a prerecorded tape or tapes recorded on another unit. For normal operation, place the TRACKING in the centre position.

- **BATTERY EJECT button**
  Used to detach the battery pack.

- **Eyelet tabs**
  Pull the shoulder strap through these eyelet tabs and adjust the length of the strap with the buckle.

- **Pause Remote Control jack**
  For plugging in the Pause Remote Control VR-20ME (optional) to operate the Camcorder from a distance.

- **REC START/STOP button**
  Press to start recording. Recording will be paused if pressed during the recording mode.

- **Sub REC START/STOP button**
  Press to start recording. Recording will be paused if pressed during the recording mode.
  Use when recording from a low angle.

- **Earphone jack**
  For plugging in an accessory earphone to monitor the sound during recording and playback.

- **BGM (Background Music) jack**
  Connect an audio source to this BGM jack through the IT-73BG, an optional BGM cable. This allows sound from the microphone and background music to be mixed together for recording.

- **Grip Strap**

- **DC input jack**

- **Battery Pack Compartment**

CONTROL PANEL

- **OPERATE on/off switch**
  Turns power on and off.

- **EJECT button**
  Used to insert or remove the VHS C PAL cassette.

- **PLAY button**
  Press for playback.

- **FF/Forward Search button**
  Use to fast-forward the tape and operate forward video search during playback.

- **REW/Reverse Search button**
  Use to rewind the tape and operate reverse search during playback.

- **REC REVIEW button**
  Press the REC REVIEW button in the recording pause mode to automatically playback and check the last two seconds of the recording in the viewfinder.

- **DATE-TIME DISPLAY button**
  Used to display either the date/time or date in a picture being recorded.

- **EDIT switch**
  Picture quality inevitably deteriorates each time you dub from the Camcorder to a VCR. Slide the EDIT switch on to minimize deterioration of picture quality. Use this while you edit your videos.

- **CAMERA REC/VCR PLAY switch**
  When the Camcorder is recording, set this switch to the CAMERA REC position. (The Camcorder will then automatically go into REC PAUSE mode.)
  When using the Camcorder as a VCR, set this switch to VCR PLAY.
  (At this time, if it is in the REC PAUSE mode, it will go to Still mode; if it is recording, it will go to Stop mode.)

- **STOP button**

- **PAUSE/STILL button**
  Use to view a still picture during playback.

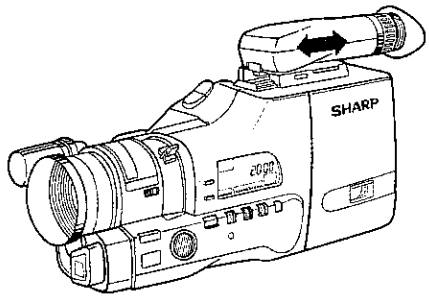
- **INDEX MARK REC button**
  When pressed in the REC PAUSE mode, this button records VHS index marks on the tape. Quick programme searching is possible when the tape is played on a VCR incorporating a VHS index search system.

- **AV output terminal**

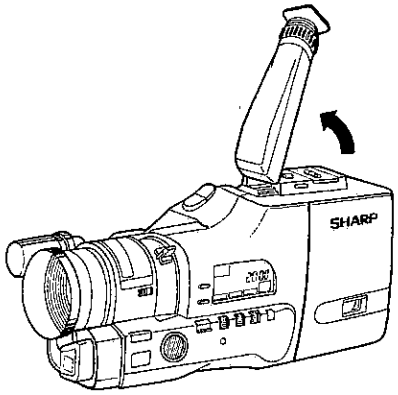
USING THE ELECTRONIC VIEWFINDER

ADJUSTING THE VIEWFINDER POSITION

While traveling, leave the viewfinder in the forward position to protect it. Push the viewfinder slide button marked PUSH and slide it forward. Simply slide it back until it locks in the rear position to use it.



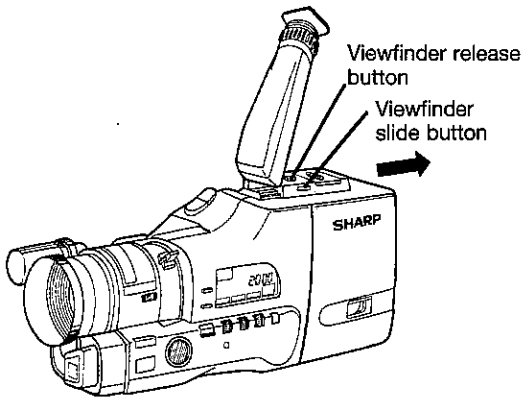
The viewfinder can be adjusted to suit your viewing angle. It can be tilted up 80° for low-angle shots.



DETACHING AND ATTACHING THE ELECTRONIC VIEWFINDER

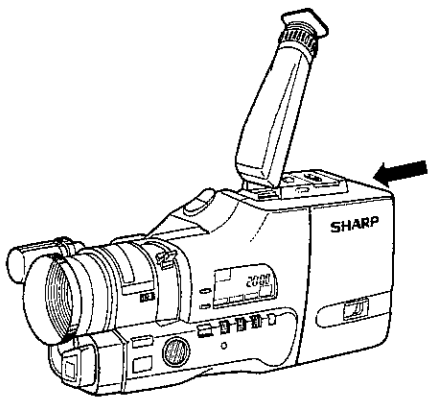
Detaching Electronic Viewfinder

Pull out the viewfinder cable first. Then slide the viewfinder back until you hear a click. Lift the viewfinder up. Then pull it back while at the same time pressing the viewfinder slide and release buttons.



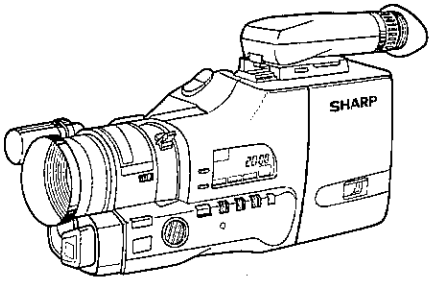
Attaching Electronic Viewfinder

To attach the viewfinder again, push it until you hear a click. Then, while pressing the viewfinder slide button, slide it forward. Then connect the viewfinder cable to the Camcorder.

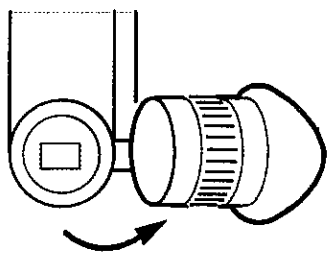


EYEPIECE ADJUSTMENT

The Camcorder comes with a diopter adjustment control. Move this control clockwise or counterclockwise to adjust the eyepiece to your eyesight. As individuals differ in eyesight, adjust the eyepiece so that the characters inside the viewfinder can be seen clearly when used for the first time or by anybody else.



Swing the eyepiece right to view the viewfinder from several feet away. The eyepiece can also be cleaned in this position.

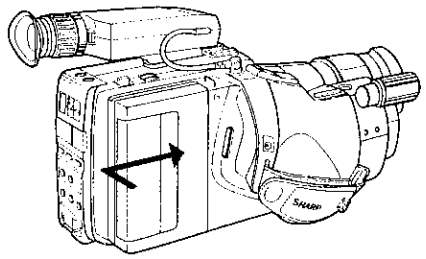


Note: Power must be supplied to the Camcorder for this adjustment.

ATTACHING AND DETACHING THE BATTERY PACK

Attaching the Battery Pack

1. Align the ◄ mark on the battery pack with that on the Camcorder.
2. Slide the battery pack in the direction of the arrow until it clicks.



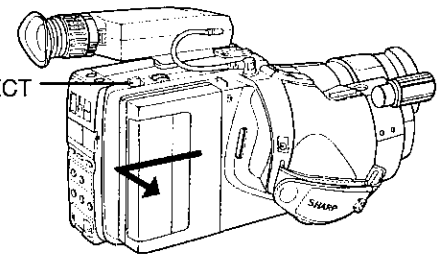
Note:
The battery pack is uncharged when shipped and must be charged before use.

Detaching the Battery Pack

Make sure the OPERATE indicator is off.

1. Press the BATTERY EJECT button and slide the battery pack in the direction of the arrow.
2. Remove the battery pack when not in use.

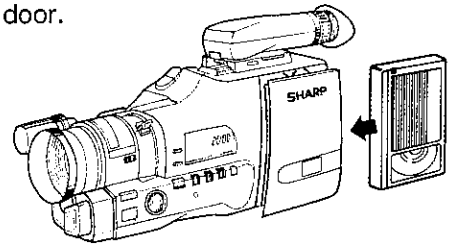
BATTERY EJECT button



INSERTING AND REMOVING A CASSETTE

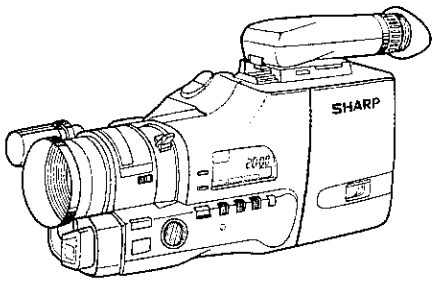
Inserting a cassette

1. Press the EJECT button to open the cassette compartment. Insert a VHS C PAL cassette with the transparent window facing you and the arrow facing out. **Remove tape slack before inserting the cassette.**
2. Press "PUSH" to close the compartment door.



Removing a cassette

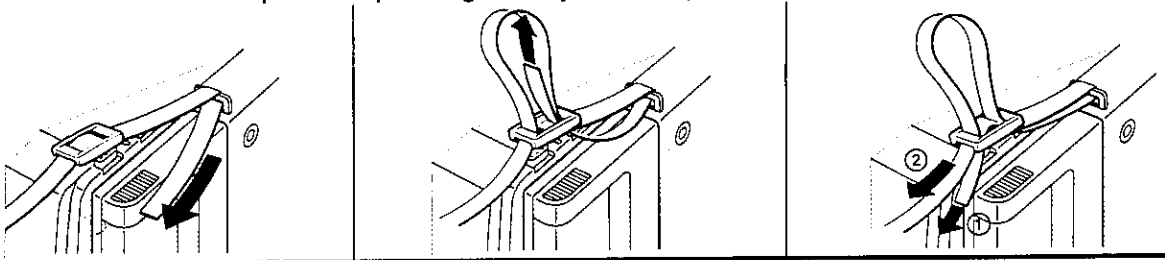
1. Press the EJECT button. The cassette compartment will open. Remove the cassette.
2. Close the compartment door.



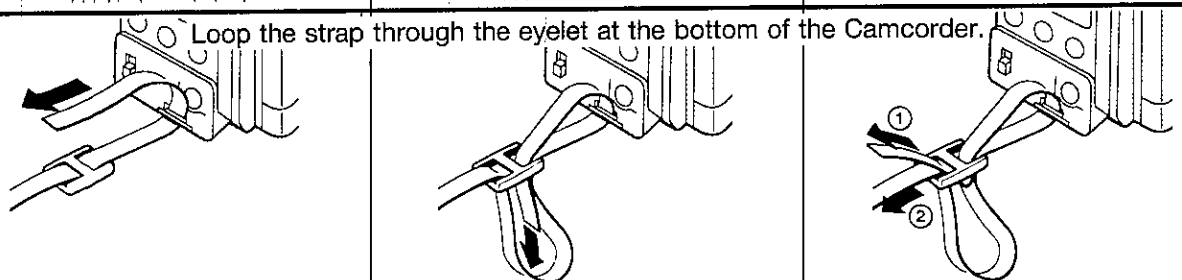
Note: The cassette may be ejected simply by pressing the EJECT button. There is no need to slide the OPERATE button to off before you press the EJECT button.
The cassette cannot be ejected while recording. Go to REC PAUSE mode and press the EJECT button.

ATTACHING THE SHOULDER STRAP

Loop the strap through the eyelet on top of the Camcorder.



Loop the strap through the eyelet at the bottom of the Camcorder.

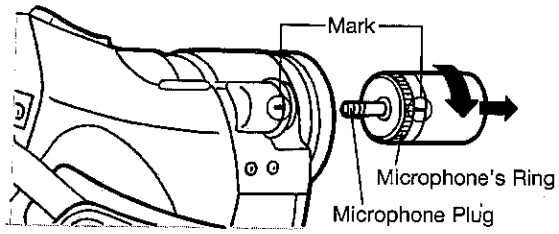


Note: Before using the Camcorder, make sure that the shoulder strap is fastened tightly enough, and that no slack exists.

DETACHING AND ATTACHING THE MICROPHONE

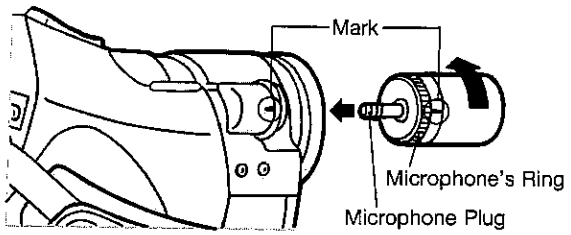
The Camcorder's microphone is detachable, so that if you don't want to have sound on your recordings you can detach it. Also, when the microphone is detached you can use the external microphone terminal to record audio from an outside source.

DETACHING THE MICROPHONE



① Turn the microphone's ring mark (–) in the direction of the arrow to match the corresponding mark on the Camcorder.
② Holding the microphone ring, pull back and the microphone comes apart.

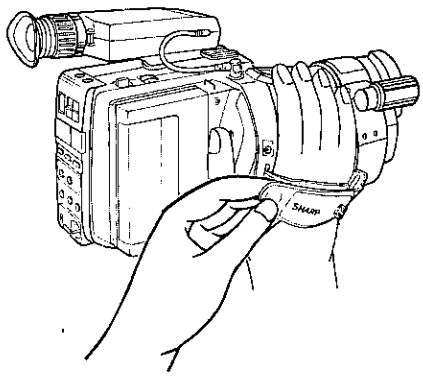
ATTACHING THE MICROPHONE



① Match the microphone ring's mark (–) with the mark (–) on Camcorder. Then insert the microphone plug.
② Turn the microphone ring into the direction of the arrow to fix in the microphone.

ADJUSTING THE GRIP STRAP

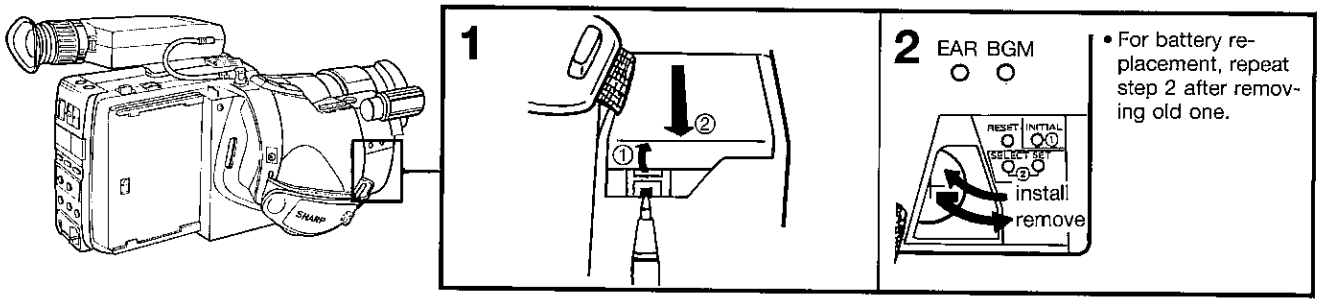
Separate the strap to expand the loop, then pass your hand through the loop and grasp the hand grip. Adjust the length of the strap so your hand is secure but comfortable and refasten the strap.



INSTALLING THE LITHIUM BATTERY

1 Open the lithium battery compartment cover with a pointed object.

2 Insert the battery with the "+" side out. Close the lithium battery compartment cover.



Warning:

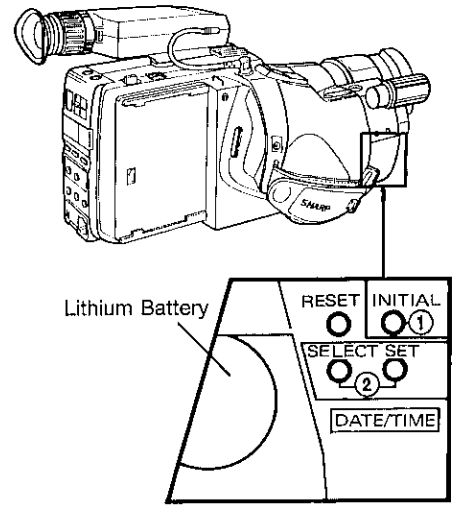
- Dispose of used battery promptly. Keep away from children. Do not disassemble and do not dispose of in fire.
- The battery used in this device may present a fire or chemical burn hazard if mistreated. Do not recharge, disassemble, heat above 100°C or incinerate. Replace battery with type CR2025 of SONY ENERGYTEC, FUJI ELECTROCHEMICAL or MATSUSHITA ELECTRIC only. Use of another battery may present a risk of fire or explosion.

Notes:

- This lithium battery is available at a local electronic appliance shop or audio/video shop.
- Disconnect the power source (AC adaptor, battery pack, etc.) before replacing the battery.
- The battery life is approximately one year but it differs depending on the ambient temperature and the condition of the lithium battery.
- Replace the lithium battery before it runs out. Reset the date and time after replacing the battery.
- Do not short-circuit the battery by holding the electrodes with metallic objects such as tweezers, as doing so will deteriorate the battery quality.

SETTING THE DATE/TIME

The auto date/time function features a date and time which can be recorded as a handy reference. Follow the instructions below to set the current date and time.

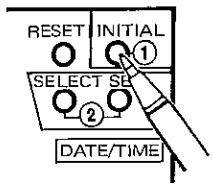


Example: Setting the date to 25th Oct. 1988 and time to 15:27.

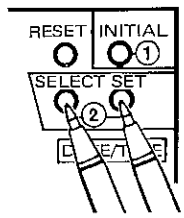
1 Install the date/time lithium battery.
Open the control panel.
See page 9.

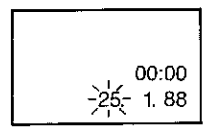
2 Connect a battery pack or power source.
Slide the OPERATE switch on.
Press the DATE-TIME DISPLAY button.

3 Press the INITIAL button using a dull-pointed object such as a ball point pen.

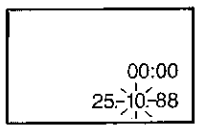


4 The day will flash. Press the SELECT button to select the day. When the correct day appears, press the SET button.

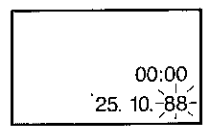




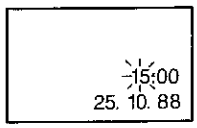
5 The month will flash. Press the SELECT button to select the month. When the correct month appears, press the SET button.



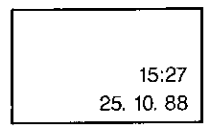
6 The year will flash. Press the SELECT button to select the year. When the correct year appears, press the SET button.



7 The hour will flash. Press the SELECT button to select the hour. When the correct hour appears, press the SET button.



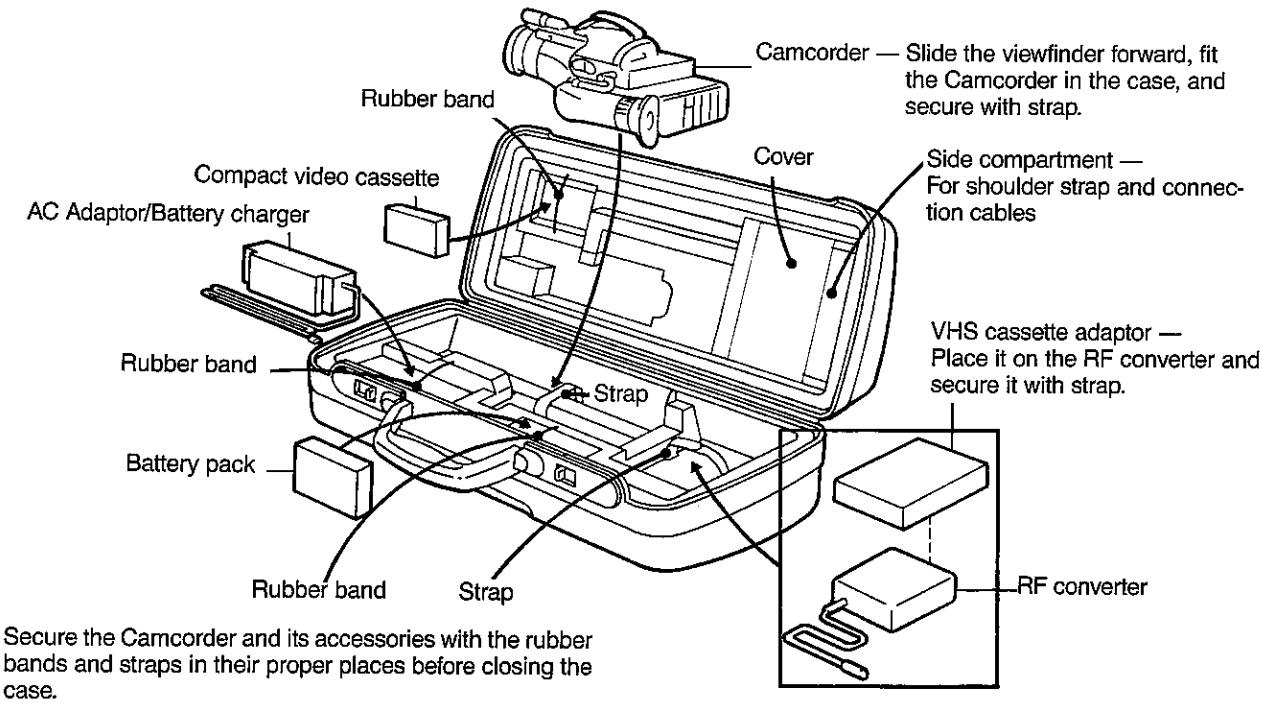
8 The minutes will flash. Press the SELECT button to select the minutes. When the correct time appears, press the SET button.



USING THE SYSTEM CASE

This system case was designed specifically for use with the SHARP Camcorder VL-C750S

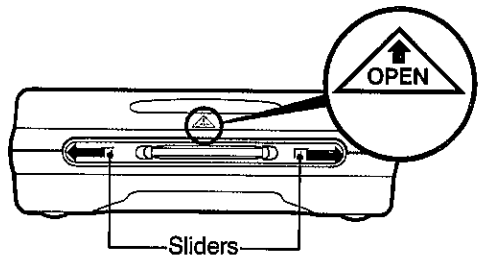
Suggested Placement of the Camcorder and Accessories


Camcorder — Slide the viewfinder forward, fit the Camcorder in the case, and secure with strap.
Rubber band
Cover
Side compartment — For shoulder strap and connection cables
Compact video cassette
AC Adaptor/Battery charger
VHS cassette adaptor — Place it on the RF converter and secure it with strap.
Rubber band
Strap
Battery pack
Rubber band
Strap
RF converter

Secure the Camcorder and its accessories with the rubber bands and straps in their proper places before closing the case.

How to Open the Case

Lay the case flat with the OPEN mark pointing upwards, and move the sliders in the direction of the arrows to open.



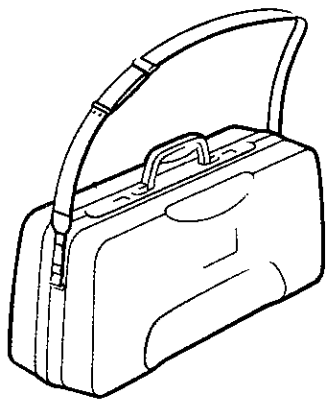
Cautions:

- Do not drop or subject the system case to severe shock or vibration.
- Do not place heavy objects on the system case.
- Do not sit or stand on the system case.
- Do not subject the system case to heat, such as leaving it in direct sunlight, near heaters, or in automobiles during the summer. Deformation may result from high temperatures.
- Do not open the system case when upright — lay flat to open.

Maintenance

If the case becomes dirty, wipe clean with a soft, dry cloth. If it is particularly dirty, wipe clean with a soft cloth dampened with water or a weak soap solution, then wipe dry with a dry, soft cloth. Never use alcohol, petrol, paint thinner or other chemical products for cleaning. These could cause discolouration or deformation of your case.

How to Attach the Shoulder Strap

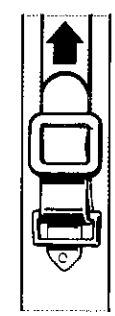


Shoulder strap

1. Loop the strap through the case's retaining rings.

2. Feed the strap through the strap's retainers.

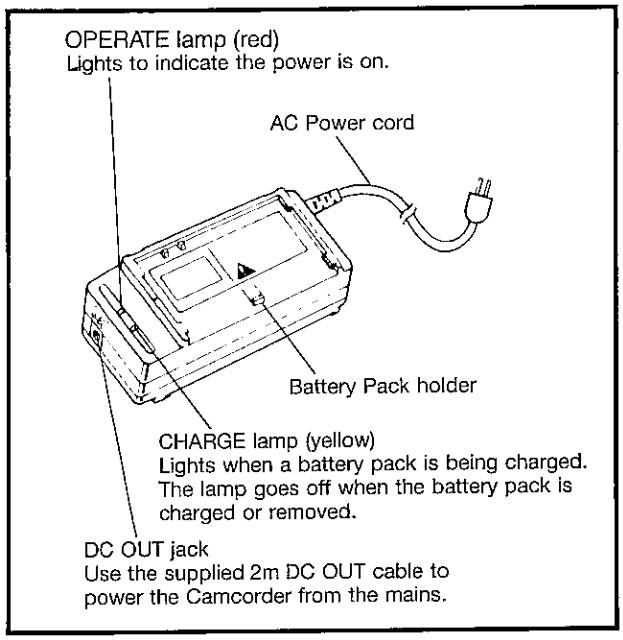
3. Tug the strap and make sure it is securely attached.



POWER SUPPLY SYSTEM

For portable and outdoor use, the supplied BT-73 battery pack is ideal. Indoors, the supplied AA-73S AC Adaptor/Battery Charger and 2m DC OUT cable will be more useful. For extended outdoor use, the optional VR-P73CH Car Battery Adaptor/Charger may come in handy in remote locations.

Using the AC Adaptor/Battery Charger


OPERATE lamp (red)
Lights to indicate the power is on.
AC Power cord
Battery Pack holder
CHARGE lamp (yellow)
Lights when a battery pack is being charged.
The lamp goes off when the battery pack is
charged or removed.
DC OUT jack
Use the supplied 2m DC OUT cable to
power the Camcorder from the mains.

Note:
The optional SHARP VR-P73CH Car Battery Adaptor/Charger is like the AA-73S, but operates from a car battery.

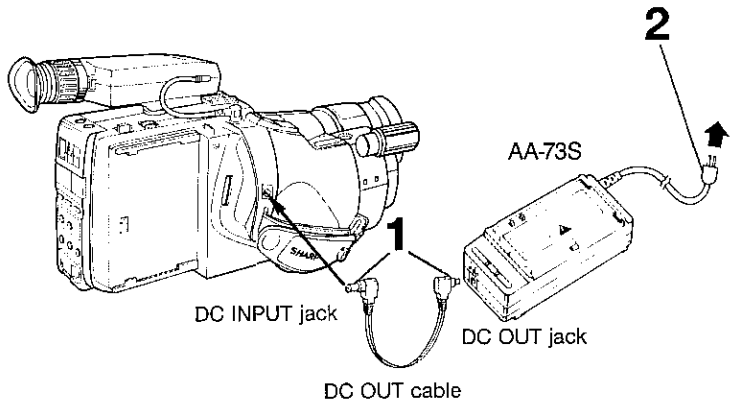
Precautions:
- The AC Adaptor/Battery Charger, if used near a radio, may cause interference.
- Prevent flammables, liquids or metal objects from entering the unit.
- The AA-73S is a sealed unit. Do not attempt to open or modify it.
- Do not damage or drop the unit or subject it to vibrations.
- Do not leave the unit in direct sunlight.
- Avoid using the unit in humid or extremely hot places.

USING THE AC ADAPTOR/BATTERY CHARGER

Use the supplied AA-73S AC Adaptor/Battery Charger and DC OUT cable.

1 Connect the DC OUT cable to the AC Adaptor and Camcorder.

2 Insert the AC plug in a wall outlet. The OPERATE lamp on the AC Adaptor will light.

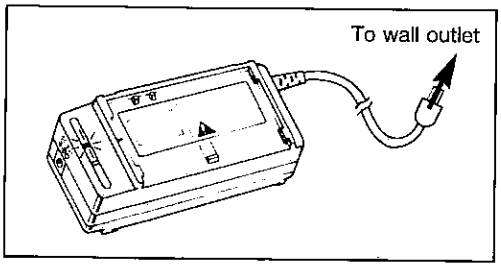


Note: The AA-73S AC Adaptor/Battery Charger will not supply power to the Camcorder through the DC OUT cable while charging a battery pack.

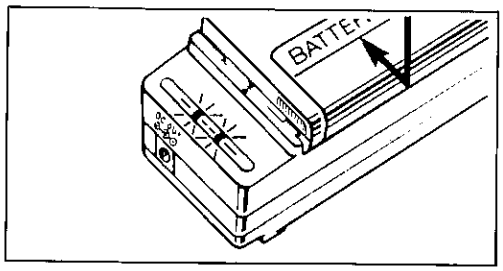
CHARGING THE BATTERY PACK

Use the supplied AA-73S AC Adaptor/Battery Charger. Outdoors, you can use the optional SHARP VR-P73CH Car Battery Adaptor/Charger.

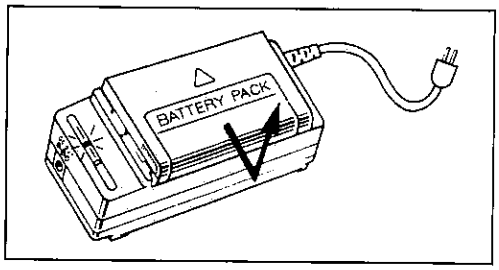
1 Insert the AC plug in a wall outlet.
The OPERATE lamp will light.



2 Align the ▼ mark on the side of the battery pack with that on the charger and guide the battery pack into the groove. Slide the battery pack forward until it locks in place. The CHARGE lamp will light.



3 When the battery pack is charged the CHARGE lamp will go off. Pull out the AC plug from the wall outlet and remove the battery pack by sliding it back.



Note:
Normally the battery pack and charger are warm after charging.

CHARGING TIME of BT-73 : 60 min.

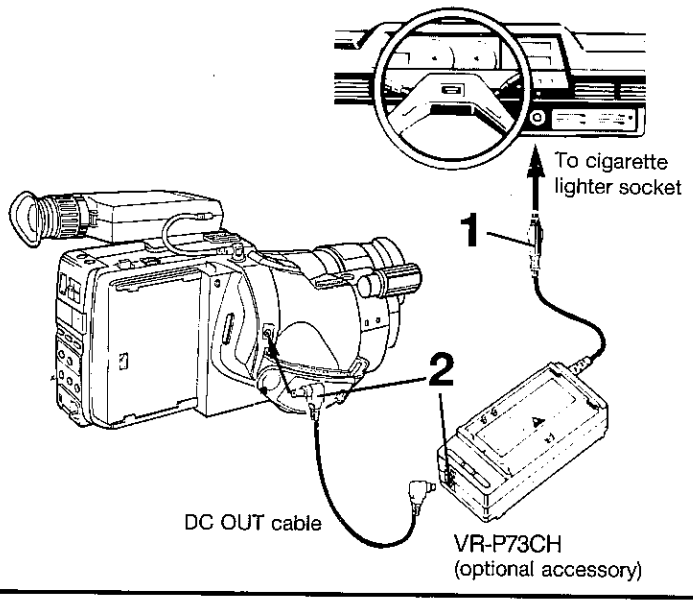
Note:
The charging time depends on the ambient temperature and the condition of the battery pack.

USING THE CAR BATTERY ADAPTOR/CHARGER (OPTIONAL ACCESSORY)

To charge the battery pack or power the Camcorder in a car, use the optional SHARP VR-P73CH Car Battery Charger.

1 Start the car engine and leave it idling while using the Car Battery Charger. Insert the plug in the car cigarette socket. The OPERATE lamp will light.

2 Since the Car Battery Adaptor operates like the AC Adaptor, follow the instructions for using the AC Adaptor/Battery Charger. See page 12.
You can also connect the DC OUT cable to power the Camcorder.



Note:
The VR-P73CH Car Battery Adaptor/Charger will not supply power to the Camcorder through the DC OUT cable while charging a battery pack.

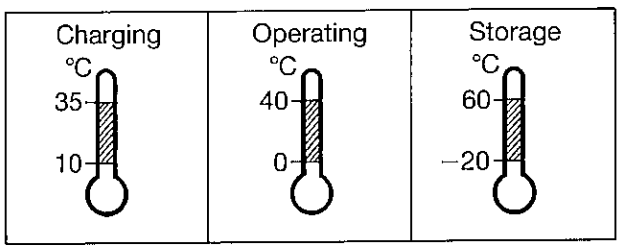
Caution:
The VR-P73CH Car Battery Charger can only be used with 12V or 24V negative-ground cars.
Do not use with 12V or 24V positive-ground cars. Check the car operation manual or consult your car dealer.

USING THE BATTERY PACK

The BT-73 is a nickel-cadmium battery and has the following characteristics.

Recharging normally takes one hour at a room temperature of 20°C. The lower the temperature, the longer the recharging time.

Temperature Range



To avoid hazard:
- Do not burn the battery pack.
- Do not short circuit the terminals.
- Do not disassemble or modify it.
- Use only recommended SHARP chargers: AC Adaptor/Battery Charger AA-73S or Car Battery Adaptor/Charger VR-P73CH.

To prevent damage and prolong battery life:
- Do not damage or drop the unit or subject it to mechanical vibration.
- Avoid repeated charging without discharge of the battery pack.

The battery pack has a limited life, when it begins to deliver less recording time per charge, purchase a replacement.

Note:
The battery pack is normally warm after charging or use.

RECORDING TIME of BT-73: 60min.

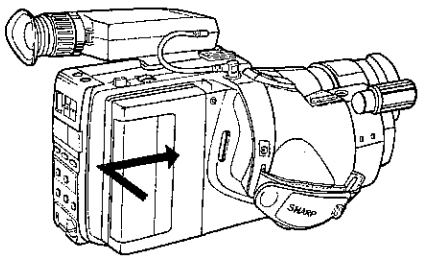
The recording time of a fully charged battery pack is influenced by the amount of recording and standby time, use of the zoom lens and other factors.
Spare battery packs are available from your SHARP dealer. Have spare battery packs on hand, otherwise you may miss important video opportunities.

Nickel-cadmium batteries are best when maintained under the following conditions:

1. Full charging takes place between 10°C and 35°C. Charging takes longer at lower temperatures and charging may be incomplete at higher temperatures.
2. Store battery packs in a cool dry place. Long exposure to high temperatures increases battery discharge and reduces battery life.
3. Total battery discharge may naturally occur during long storage. Discharge batteries before storing them — this extends battery life.
4. Detach batteries from Camcorder or charger after use, otherwise battery discharge may continue.

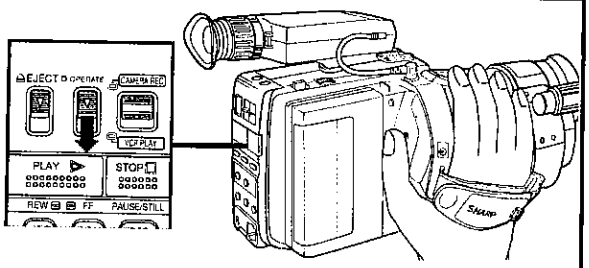
CAMERA RECORDING

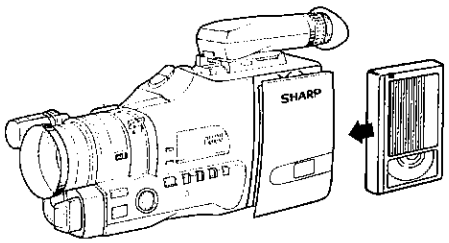
1 Attach the recharged battery pack. (See page 8.) However, use the supplied AC adaptor for indoor camera recording or an optional Sharp car battery adaptor/charger for recording in a car.



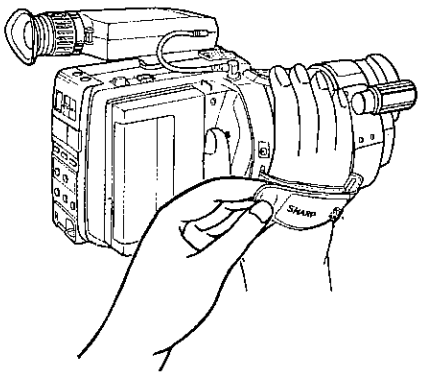
2 Slide the OPERATE switch on — the operate indicator will light.
Press the EJECT button and open the cassette holder. Insert a VHS D PAL video cassette with its tab intact and with its window facing outward.

Caution:
Before inserting the video cassette, be sure to check that the tape is not slack.

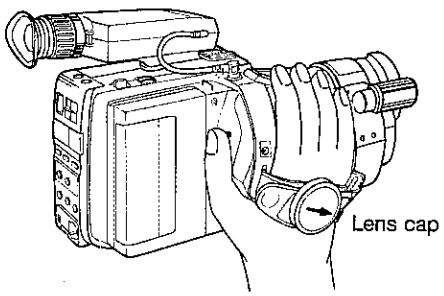




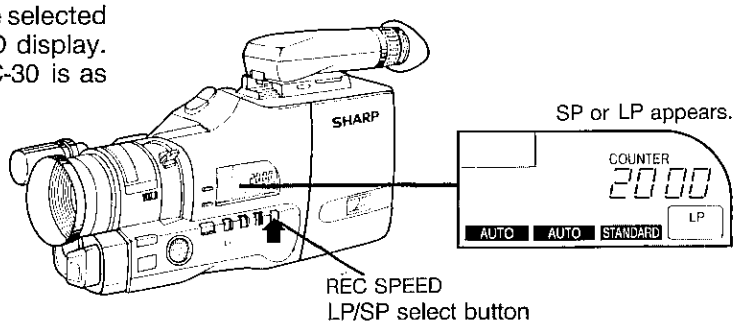
3 Position your hand properly to allow your fingers to press the REC START/STOP button and Power Zoom button. Then adjust the grip strap to suit your hand.



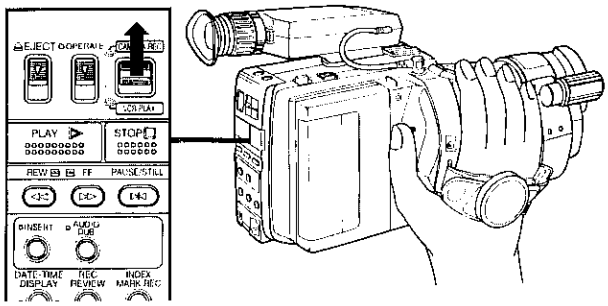
4 Remove the lens cap and secure it to the grip band. Then aim the camera at a solid colour subject (the sky or a white wall) and adjust the diopter adjustment so the display in the viewfinder becomes clear.



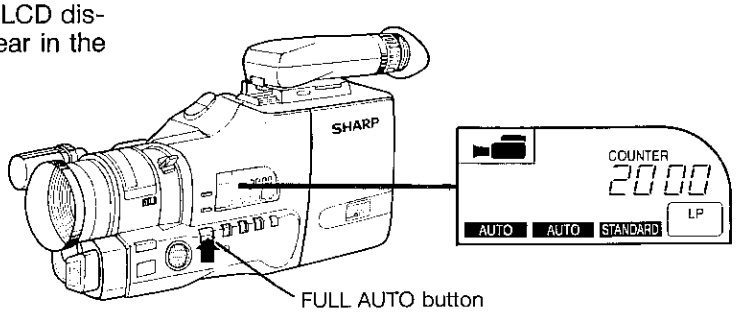
5 Press the REC Speed LP/SP select button and set the recording time. This causes the selected recording mode to appear in the LCD display. Recording time on the VHS C PAL tape EC-30 is as follows.
SP mode: 30 minutes
LP mode: 60 minutes



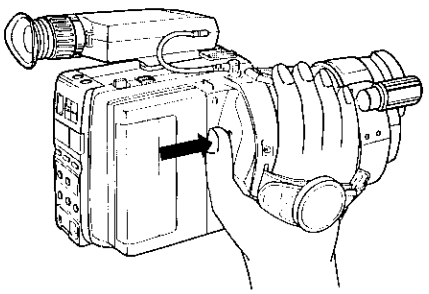
6 Set the CAMERA REC/VCR PLAY switch to "CAMERA REC" position.



7 Press the FULL AUTO button. Check that this causes the mark to appear in the LCD display. If not, an alarm indicator will appear in the LCD display.

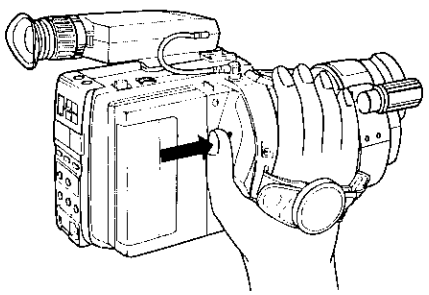


8 Press the REC START/STOP button. While recording, "»»»" in the viewfinder moves in sequence from left to right.



Note:
If recording for an extended period of time, the handgrip may become hot. However, this does not indicate malfunction.

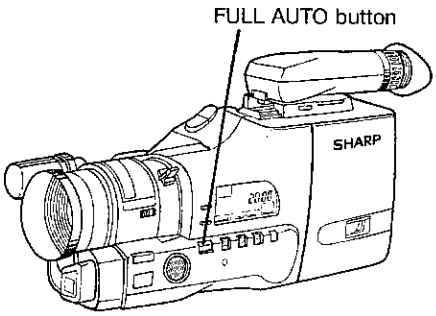
9 When you wish to finish recording, press the REC START/STOP button once again.

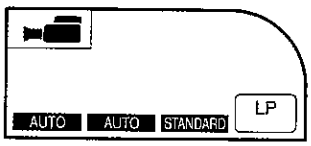


Note:
If the Camcorder is in the REC PAUSE mode for more than 5 minutes, it will switch itself off. To restart recording just slide the OPERATE switch to ON.

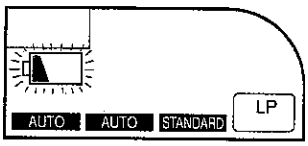
FULL AUTO SYSTEM

Pressing the FULL AUTO button sets the Focus and White Balance to the AUTO modes and the shutter speed to STANDARD mode, making the Camcorder easy for anyone to operate for accurate camera recording. When this button is pressed, the FULL AUTO mark normally appears on the LCD display. However, other alarm indicators may appear if camera recording is not possible for some reason. These include loading a video cassette with its tab removed, for example.





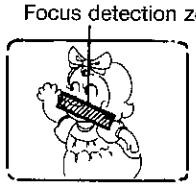
Camera recording is possible in the FULL AUTO mode when the mark appears.



When any alarm indicator appears instead of the mark, follow the alarm immediately. (See page 20)

AUTO FOCUS

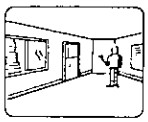
Autofocus lets you concentrate on creating great videos, knowing they will be perfectly focused. The 12× variable speed power zoom gives great closeups, too.



In the AUTO position the focus is continuously adjusted to maintain the best focus. There is a small area in the centre of the viewfinder which detects the subject distance and sets the focus. Try and keep the subject in the middle of the viewfinder.

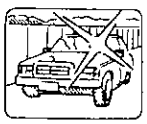
Note:
The Autofocus sensor may not be able to focus on a subject in the following situations. Manually focus the lens to obtain the correct focus.

Cautions:
- Do not touch the focus ring or cover the Autofocus window while the autofocus mechanism is operating.
- If the focus ring is touched during autofocus, the Autofocus may stop as a safety feature. When this happens, switch the FOCUS switch to MANUAL and back to AUTO.
- If the lens or autofocus window is dirty or obscured, accurate focusing may be difficult. Keep these clean at all times. If they become dirty, clean with a soft tissue and use lens cleaning fluid to clean the lens. Should condensation occur, dry by wiping with a soft cloth or wait until the condensation evaporates.

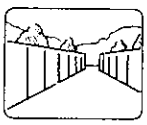

Subject too dark.

Lack of contrast, ie. snow scene.

Scene includes objects at uniform distance apart.


Light reflects off the subject.

Two subjects at different distances overlap in the same scene.


Subject extends from foreground into background.

Fast-moving subject.

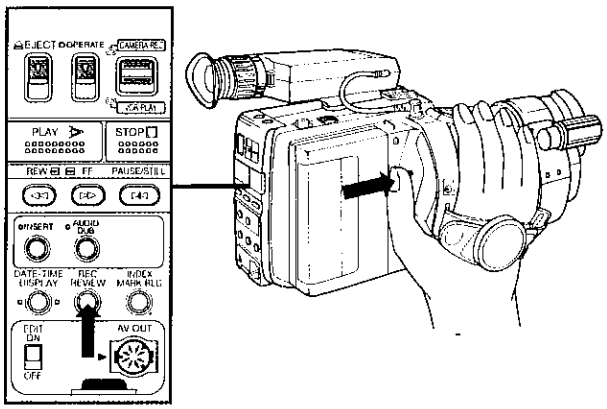
AUTO WHITE BALANCE

Your Camcorder is equipped with automatic white balance which ensures good colour in your videos. Correct colour balance is important for accurate colour reproduction.

The white balance is automatically adjusted to compensate for any changes in the colour temperature of the light. Be careful not to cover the white balance sensor.

REC REVIEW

Press the REC START/STOP button while recording to REC PAUSE ("»»»" will light in the viewfinder), and press the REC REVIEW button.
About the last 2 seconds of the recording are rewound and played back. The Camcorder is then ready to continue recording.



INDEX MARK RECORDING

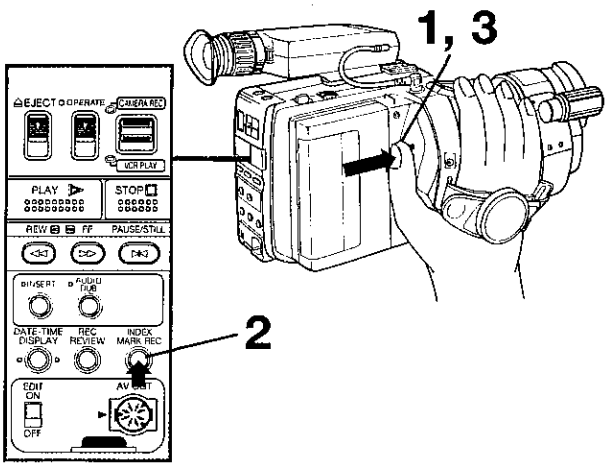
Index mark recording lets you quickly locate your favourite scenes during playback on a VCR equipped with VHS Index Search System (VISS).

1 Press the REC START/STOP button to pause recording.

2 Press the INDEX MARK REC button — INDEX is displayed in the viewfinder.

3 Press the REC START/STOP button to resume recording. An index mark will be inserted during about the first two seconds of recording.

Note:
The Camcorder only records the Index Mark but cannot find it for playback. But when using a VHS VCR with the VHS Index Search System, the place is easily located.



POWER ZOOM (WIDE/TELEPHOTO CONTROL)

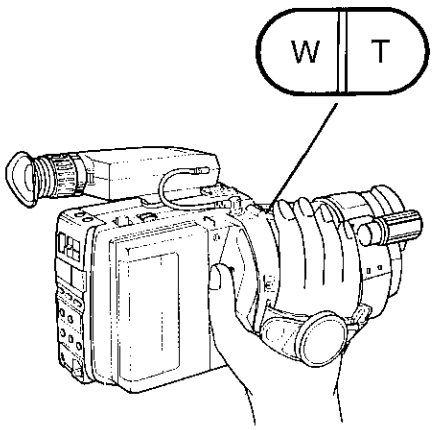
One of the best features of this Camcorder is the 12 × power zoom (with zoom speed control).

Press the power zoom buttons to zoom in and out on a subject. The pressure of your finger tips controls the zoom speed.

The zooming speed is controlled by your finger pressure, so the harder you press, the faster the zoom speed.

Press the zoom buttons hard to rapidly zoom in or out in 6 seconds, or press the zoom buttons lightly to slowly zoom in or out in about 25 seconds.

T(ele) brings things closer to you, while W(ide) makes things appear further away.



Note: If you wish to use 8 × zoom, press the W(ide) button to zoom out all the way, and set the zoom ratio 8 × /12 × selector switch to "8 × " position. (For manual zoom, follow the same procedure.)

LAP TIME FUNCTION

This Camcorder has a LAP TIME function which counts the approximate recording time.

1 Slide the OPERATE switch to on.

2 Slide the CAMERA REC/VCR PLAY switch to "CAMERA REC". The Camcorder will automatically switch to the REC PAUSE mode.

3 Press the COUNTER/COUNTER MEMORY/LAP TIME button and select LAP TIME. ("LAP TIME" will be displayed on the LCD)

4 Press the RESET button. (LAP TIME will reset to "0:00".)

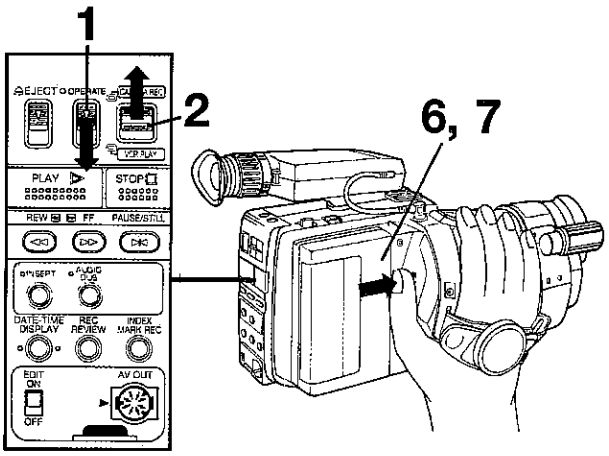
5 Press the REC SPEED LP/SP select button to set the recording speed.
Press the FULL AUTO button.

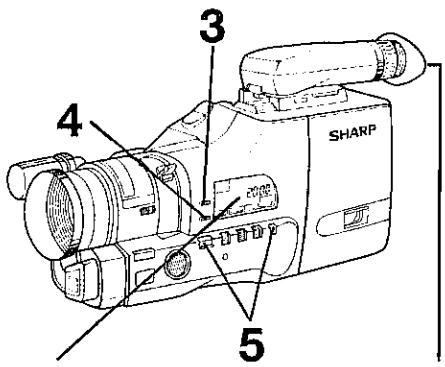
6 Press the REC START/STOP button (LAP TIME starts).

7 To stop recording, press the REC START/STOP button again (LAP TIME stops).

Note:

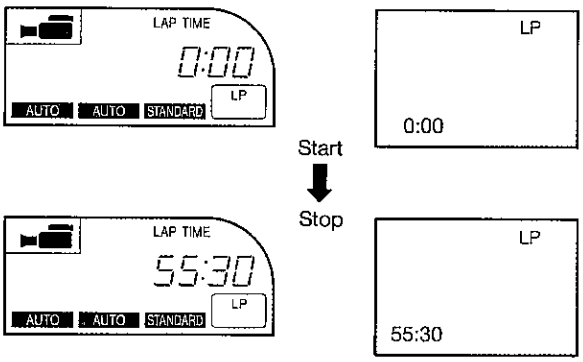
- With the Lap Time mode you can know the approximate time of the recording. The counter's maximum time is "99:99" (99 min. 99 sec.).
- The LAP TIME counter counts only during recording. (The LAP TIME mode is activated even if there is no display in the viewfinder or the LCD.)
- When the tape is ejected, the LAP TIME counter is automatically reset to "00:00".
- Even if you press the COUNTER/COUNTER MEMORY/LAP TIME button during playback, the LAP TIME will not be displayed.
(In this case only the COUNTER will be displayed.)





LCD display

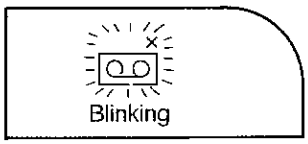
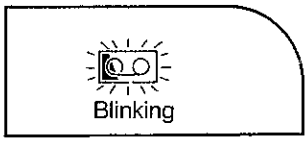
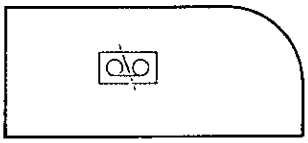
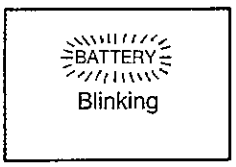
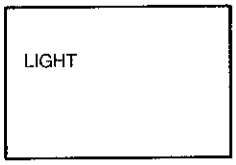
Viewfinder indicator



LCD DISPLAY AND VIEWFINDER INFORMATION

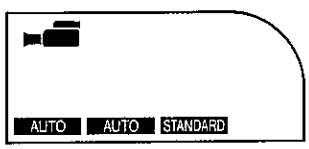
The Camcorder provides information needed for camera recording on the LCD display and in the viewfinder.

ALARM INDICATORS

LCD display	Viewfinder indicator	Indicates
		**1) Video cassette alarm** Recording cannot be carried out because the video cassette has its tab removed or no video cassette is loaded. Load a video cassette with its tab intact.
		**2) Tape-end alarm** The tape will come to its end in about 3 minutes. Prepare a new video cassette with an intact tab.
		The tape has come to its end. Replace it with new one with an intact tab.
		**3) Battery end alarm** The battery is too low. The power will be cut off in a few seconds. Replace the battery pack.
	——	**4) Dew** Condensation on tape drum. The power will cut off in a few seconds. Wait several hours before resuming use. (See page 2.)
——		**5) Light** There is not enough light to make a good recording. Add supplementary lighting or move to a brighter location.

Note: When the above indicators appear, the FULL AUTO mark is not indicated.

CONVENIENT INDICATORS

LCD display	Viewfinder indicator	Indicates
	——	**1) FULL AUTO indicator** The FULL AUTO indicator appears when the FULL AUTO button is pressed. (This indicator does not appear when there is any alarm indicator in the LCD display.) This makes the Camcorder capable of proper camera recording.

LCD display	Viewfinder indicator	Indicates
—	»»»	**2) Recording indicator** When the REC START/STOP button is pressed and recording begins, "»»»" appears, moving in sequence from left to right. When the REC START/STOP button is pressed again the Camcorder changes to REC PAUSE, "»»»" will stop moving but remain lit. **Note:** This indicator appears only when the CAMERA REC/VCR PLAY switch is in the "CAMERA REC" position.
SP	SP	**3) Recording mode** Recording at the speed shown. "SP": Reco ding at the standard play speed. "LP": Reco ding at the long-play speed.
LP	LP	
MANUAL AUTO	—	**4) Focus** The AUTO/MANUAL FOCUS select button is pressed to set the Camcorder to the AUTO or MANUAL mode. The set mode will appear.
AUTO	—	**5) White Balance** The WHITE BALANCE select button is pressed to set the following. AUTO → (Indoor) → (Fluorescent lamp) → (Outdoor) → AUTO The set mode will appear. (See page 32.)
1/1000 STANDARD	—	**6) High Speed Shutter Recording** The SHUTTER SPEED button is pressed to set the 1/1000 or standard mode. 1/1000: Used for blur-free recording of a subject moving at high speed. STANDARD: Used for ordinary recording.
—	FADER	**7) Fade in/Fade out** When either recording or in the REC PAUSE mode, press the FADE IN/OUT button. "FADER" will be displayed in the viewfinder. Then press the REC START/STOP button and you can enjoy the Fade in or Fade out function.

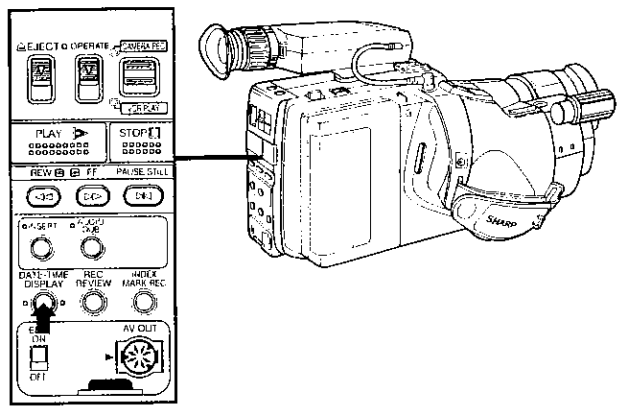
LCD display	Viewfinder indicator	Indicates
	15:27 25. 10. 88 25. 10. 88	**8) Date/Time** This unit is equipped with an AUTO DATE/TIME function. The DATE-TIME display button is pressed to set the display to either the date/time or date. The set display can be recorded on the tape along with the picture.
LAP TIME 12:45	12:45	**9) Lap Time** The lap time is displayed in minutes and seconds during recording. (See page 19.)
COUNTER 0231	0231	**10) Tape counter** It will continue to function even when the indicator is not shown in the viewfinder. The numbers in the tape counter continue to change as the tape travels. (See page 26.)

Note: If the characters displayed on the LCD and the viewfinder appear to malfunction, open the lithium battery compartment's cover and press the RESET button. When the characters on the LCD become normal, resume operation.

AUTO DATE/TIME FUNCTION

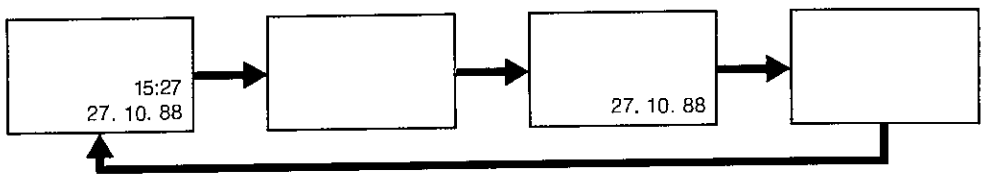
The auto date/time function features a date and time which can be recorded as a handy reference. Follow the procedures outlined below for recording the date or date/time along with the subject.

Note:
If the date and time are not set, the DATE-TIME DISPLAY button will not function. (See page 10.)



1 Connect to a power source and slide the OPERATE switch to on. Slide the CAMERA REC/VCR PLAY switch to "CAMERA REC" and the Camcorder will change to REC PAUSE.

2 Press the DATE-TIME DISPLAY button. Either the date or date/time will be displayed in the viewfinder. Pressing this button changes the display in the viewfinder as follows, and either the date or date/time can be set.



3 Press the REC START/STOP button. The date or date/time displayed in the viewfinder will be recorded along with the subject.

ASSEMBLE RECORDING

To record on a partially recorded tape or produce an assembly recording:

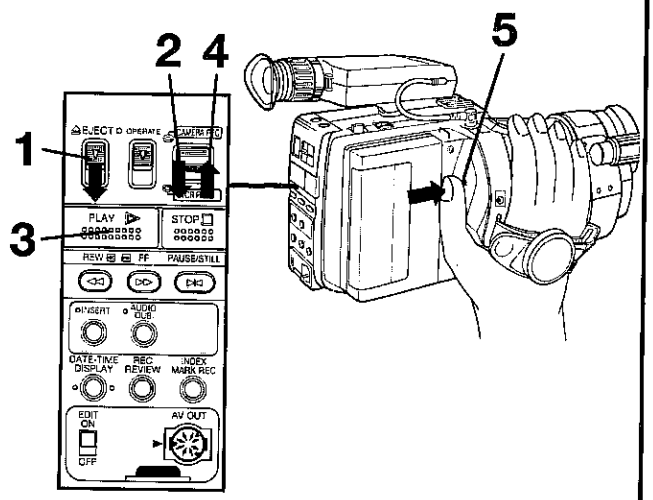
1 Press the EJECT button and insert a cassette with its tab in place.

2 Slide the CAMERA REC/VCR PLAY switch to "VCR PLAY".

3 Press the PLAY button and use the FF or REW button to quickly locate the exact point, then press the PAUSE/STILL button.

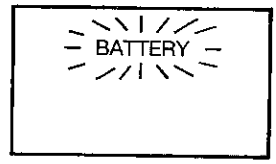
4 Slide the CAMERA REC/VCR PLAY switch from "VCR PLAY" to "CAMERA REC".

5 Press the REC START/STOP button.



REPLACING THE BATTERY PACK WHILE RECORDING

1. If BATTERY is blinking in the viewfinder while recording, press the REC START/STOP button to stop recording, then slide the OPERATE switch off.
2. Replace the battery pack with a charged one.
3. Slide the OPERATE switch on. " »»» " will be displayed in the viewfinder.
4. Press the REC START/STOP button to continue recording from the same place as before.



Note:
Make sure the power is off (the OPERATE indicator should be off) before removing the battery pack.

AUTO POWER OFF

To protect the tape and conserve battery power, the Camcorder releases the tape tension and switches itself off when in REC PAUSE mode (" »»» " displayed in viewfinder) for more than 5 minutes.

Power Supply	CAMERA REC / VCR PLAY position	Operation About 5 min.
Battery/AC	CAMERA REC	REC PAUSE → POWER off

PAUSE REMOTE CONTROL (OPTIONAL ACCESSORY)

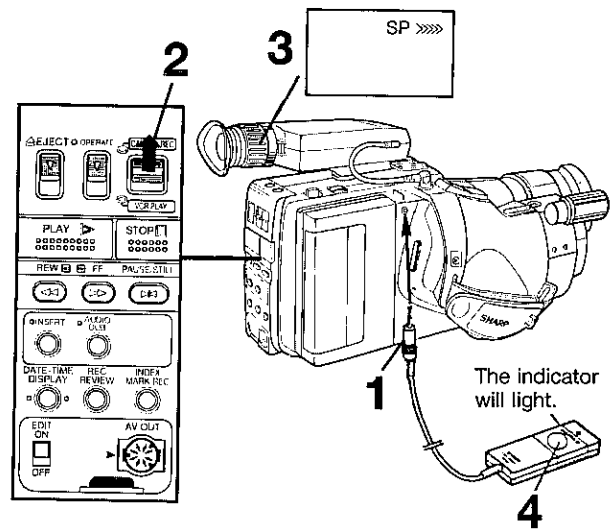
Use the optional 5m VR-20ME Pause Remote Control cable to pause while recording at a distance. It operates like the PAUSE/STILL button.

1 Plug the Pause Remote cable into the REMOTE jack.

2 Slide the CAMERA REC/VCR PLAY switch to "CAMERA REC".

3 Check that "»»»" is displayed in the viewfinder.

4 To start recording, press the REC/PAUSE button on the Pause Remote Control. The indicator in the viewfinder will move in sequence from left to right. Press the button again to pause.



PLAYBACK

The VL-C750S can playback VHS-C cassettes you have recorded.
They can be played back on the viewfinder or a TV.

PLAYBACK IN THE VIEWFINDER

1 Attach a Battery Pack or use the AC Adaptor/ Battery Charger.

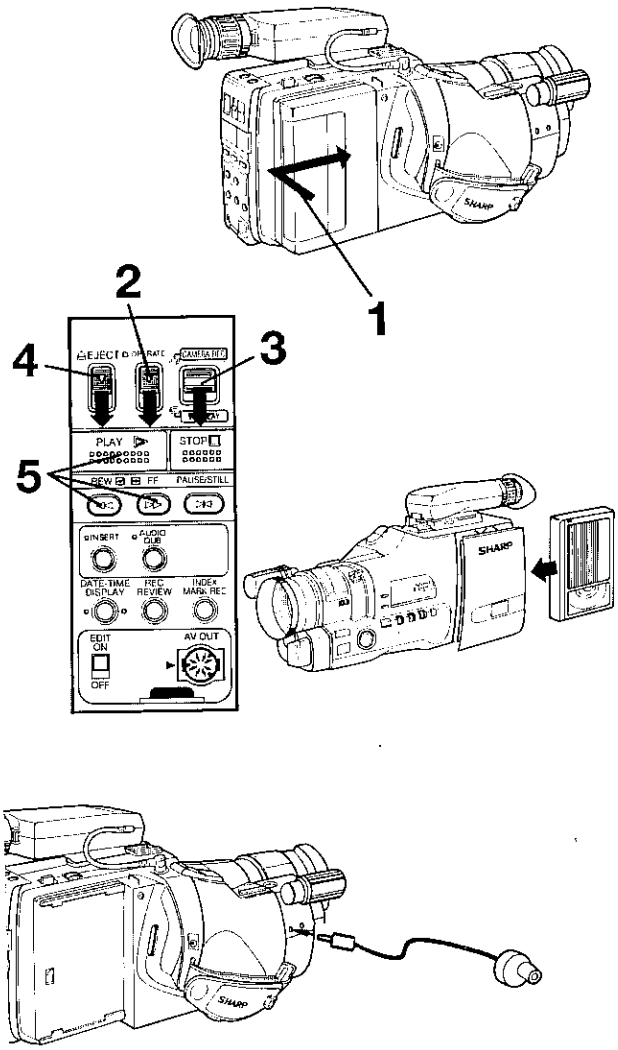
2 Slide the OPERATE switch on — the OPERATE indicator will light.

3 Slide the CAMERA REC/VCR PLAY switch to the "VCR PLAY" position.

4 Press the EJECT button and insert a video cassette.

Note:
Remove any tape slack first.

5 Cue the tape to the scene you want to watch by pressing the FF or the REW button. Then press the PLAY button.
The PLAY indicator will light and playback starts.

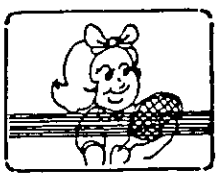


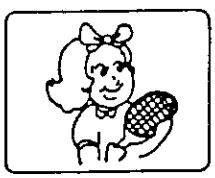
Note:
If you also want to listen to the sound of your recording, attach earphones (not supplied) to the EAR jack.

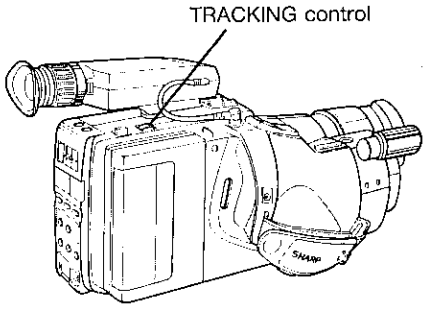
Note:
The LP/SP select button may be in either mode. The recording speed is automatically sensed and the tape is played back at the correct speed.

TRACKING ADJUSTMENT

If noise bars are visible, adjust the TRACKING control. Turn it slowly in either direction to reduce the picture noise. After playback, return the TRACKING control to the centre indent position.


Visual "Noise"


Clear



FORWARD/REVERSE SEARCH AND STILL

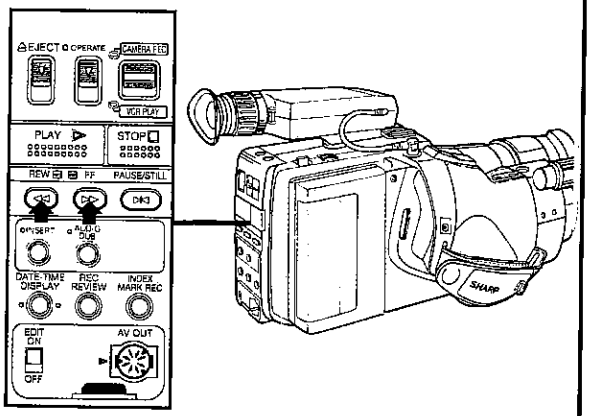
To quickly locate a point on a recorded tape, use the Forward and Reverse Search buttons. Their indicators will light (during Forward/Reverse Search).

Forward Search

Press the FF(⏩) button during playback. This speeds playback up to 3 times faster than normal for an SP recorded tape and 7 times faster for an LP recorded tape.

Reverse Search

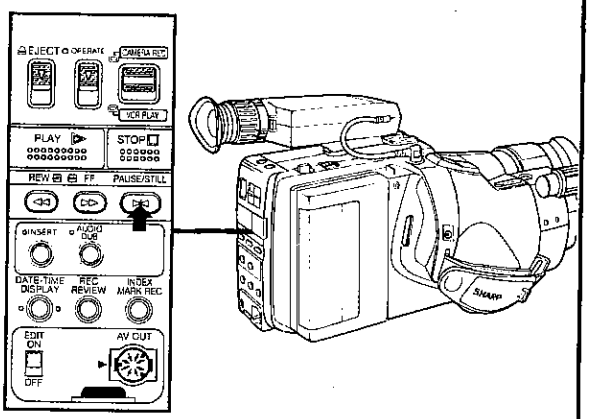
Press the REW(⏪) button during playback. This speeds up reverse playback to 3 times faster than normal for an SP recorded tape and 7 times faster for an LP recorded tape.



Note: There may be some picture noise during Forward/Reverse Search. This is normal. If the TV picture rolls vertically, adjust the TV vertical hold control. The picture may go monochrome during Forward/Reverse Search on an SP recorded tape. This is normal.

Still

Press the PAUSE/STILL button during playback to still the picture — the indicator will light. To resume playback, press the PAUSE/STILL button again.

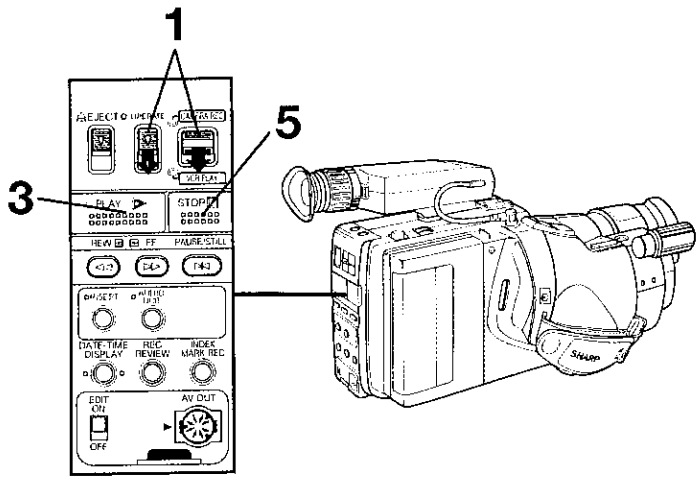


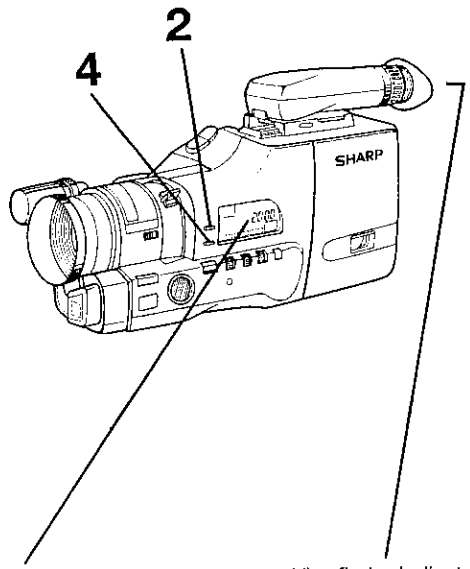
Note:
If the TV picture rolls vertically, adjust the TV vertical hold control.
To protect the tape, the Camcorder releases the tape tension and resumes STOP mode when left longer than 5 minutes in STILL mode during playback.

About 5 min.
STILL → STOP

COUNTER MEMORY FEATURE

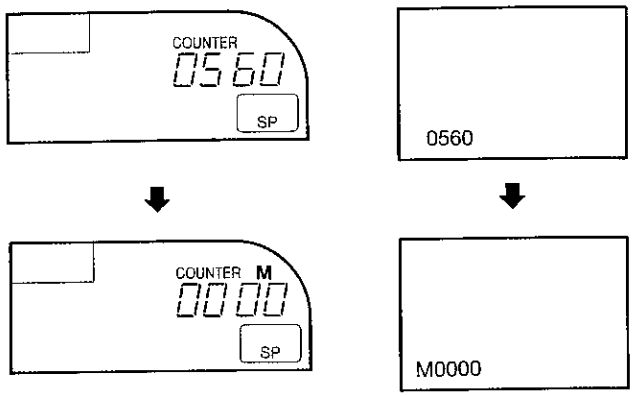
The 4-digit display acts as a handy reference to help you locate specific scenes. Use the tape counter memory to quickly return to a favourite scene.
When the memory is on, the tape stops when the counter reads "M0000" during FF or REW.





LCD display

Viewfinder indicator



1 Slide the OPERATE switch to on. Set the CAMERA REC/VCR PLAY switch to "VCR PLAY".

2 Press the COUNTER/MEMORY/LAP TIME button to display the tape counter in the viewfinder and the LCD.

3 Press the PLAY button to start playback. (When the Camcorder is in STILL mode, press the STILL button).

4 Press the RESET and COUNTER/MEMORY/LAP TIME button at the beginning of the scene.

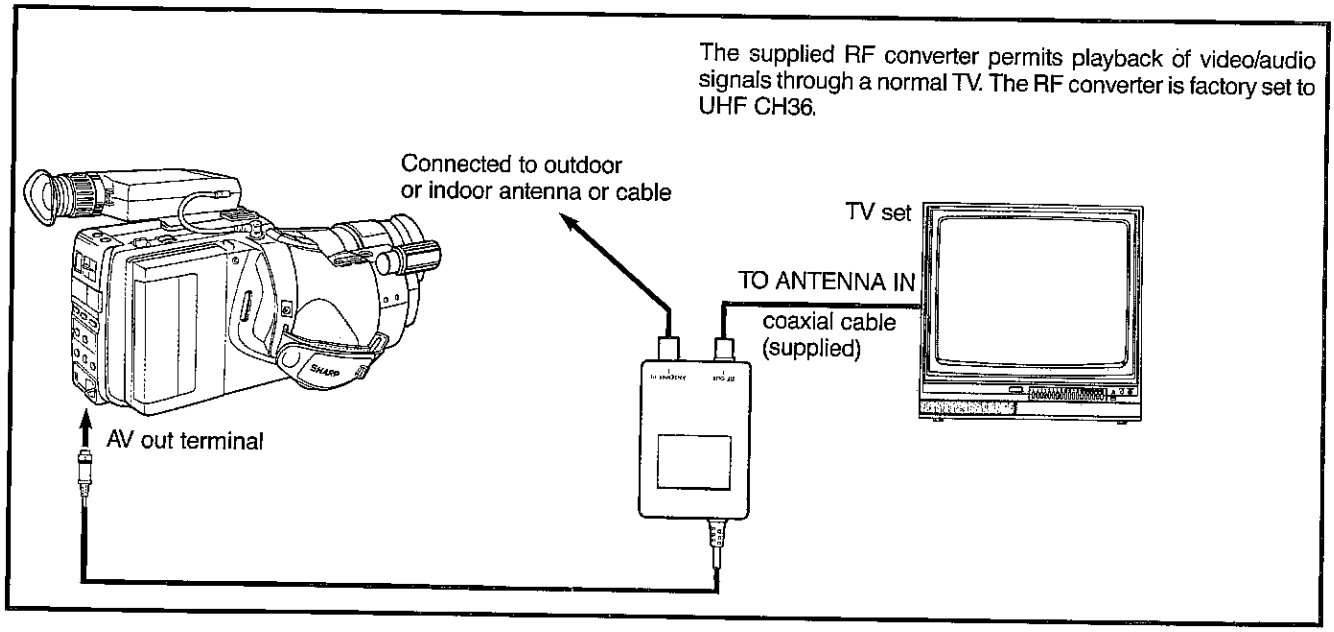
5 Press STOP at the end of the scene and then press the REW button. The tape will rewind to roughly "0000" and tape travel will stop.

Note:
- The numbers in the counter will not change smoothly while fast forwarding or rewinding. However, this is not an indication of trouble.
- The tape counter will show "0000" and "M" will appear.
- If the COUNTER/MEMORY/LAP TIME button is pressed once more, the counter display will disappear and the memory feature will not function.
  (During the CAMERA REC mode, it is also possible to switch on the LAP TIME counter by pressing the COUNTER/MEMORY/LAP TIME button.)
- Tape travel will also stop at roughly "0000" when the tape is fast forwarded.
- Counter memory feature works only when the CAMERA REC/VCR PLAY switch is in the "VCR PLAY" position.

CONNECTION TO TV

To playback tapes recorded with your Camcorder on your TV, connect the supplied RF Converter between your TV and the Camcorder.

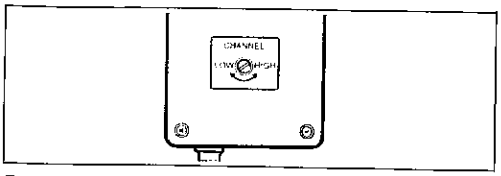
Connection to normal TV.


The supplied RF converter permits playback of video/audio signals through a normal TV. The RF converter is factory set to UHF CH36.
Connected to outdoor or indoor antenna or cable
TV set
TO ANTENNA IN
coaxial cable (supplied)
AV out terminal

TV PLAYBACK

Tune the TV to the same channel as the RF converter (UHF CH30 ~ 39) and press the PLAY button.
To resume normal TV operation, slide the OPERATE switch off on the Camcorder or unplug the RF Converter cable from the Camcorder.

1 The channel adjustor on the supplied RF converter is set to CH36. If CH36 is used in your area, set it to a different channel (see Note).



2 Set the TV tuner to the same channel.

3 Unplug the antenna cable from the TV and plug it into the ANTENNA IN terminal on the RF converter.

4 Plug the supplied 75-ohm coaxial cable into the RF OUT terminal on the RF converter and the 75-ohm coaxial antenna terminal on the TV.

5 Plug the RF converter cable into the AV out terminal on the Camcorder.

6 Slide the CAMERA REC/VCR PLAY switch to the "VCR PLAY" position and slide the OPERATE switch on.

7 Press the EJECT button and insert a video cassette, with the cassette window facing outward. Press the PLAY button.

Précautions

- Use the supplied RF converter only with the Camcorder.
- The RF converter is a sealed unit. Do not attempt to open or modify it. Do not damage or drop the unit or subject it to mechanical vibration.
- Unplug the RF converter during lightning storms.

OPERATION

Viewing video cassette being played back with the VL-C750S:
To view video cassettes or to monitor the recording, set the TV channel selector to the channel corresponding to the RF output channel.

Viewing television programmes:
Slide the OPERATE switch to off or unplug the RF converter cable from the Camcorder.

Note:
If UHF channel 36 is an active broadcast channel in your area, any nonbroadcast channel from UHF channels 30 to 39 can be selected for viewing the Camecorder's output on TV.
Adjust the RF Converter Output Channel adjustor to any of those channels (UHF30-39), and tune your TV to the same one.

CONNECTION TO TV WITH A/V TERMINALS

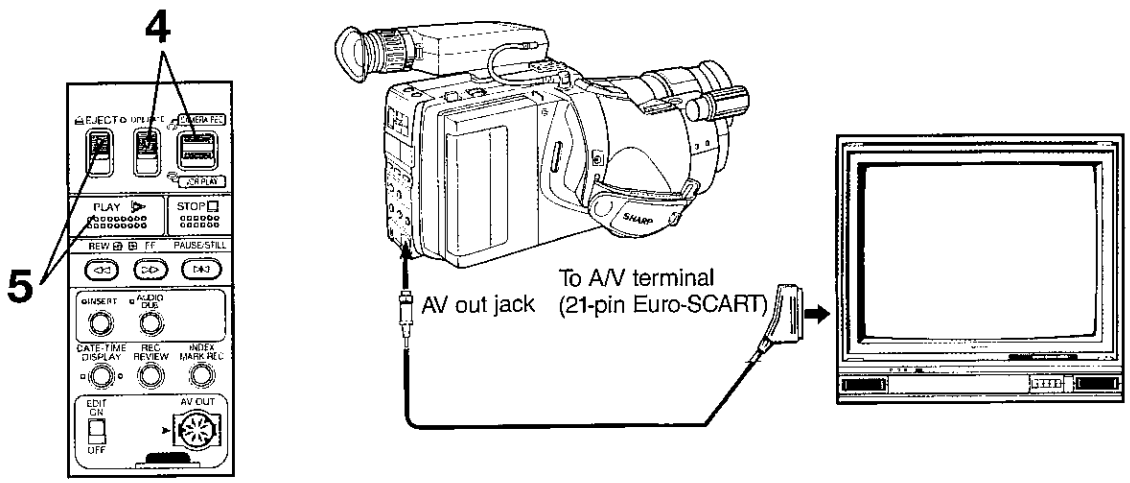
1 Plug the supplied A/V OUTPUT cable with 21-pin Euro-SCART into the AV OUT terminal on the Camcorder.

2 Plug the 21-pin A/V OUTPUT cable connector into the A/V terminal (21-pin Euro-SCART) on the TV.

3 Tune the TV to the VIDEO or A/V channel.

4 Slide the OPERATE switch to on.
Slide the CAMERA REC/VCR PLAY switch to the "VCR PLAY" position.

5 Press the EJECT button and insert a video cassette. Press the PLAY button.

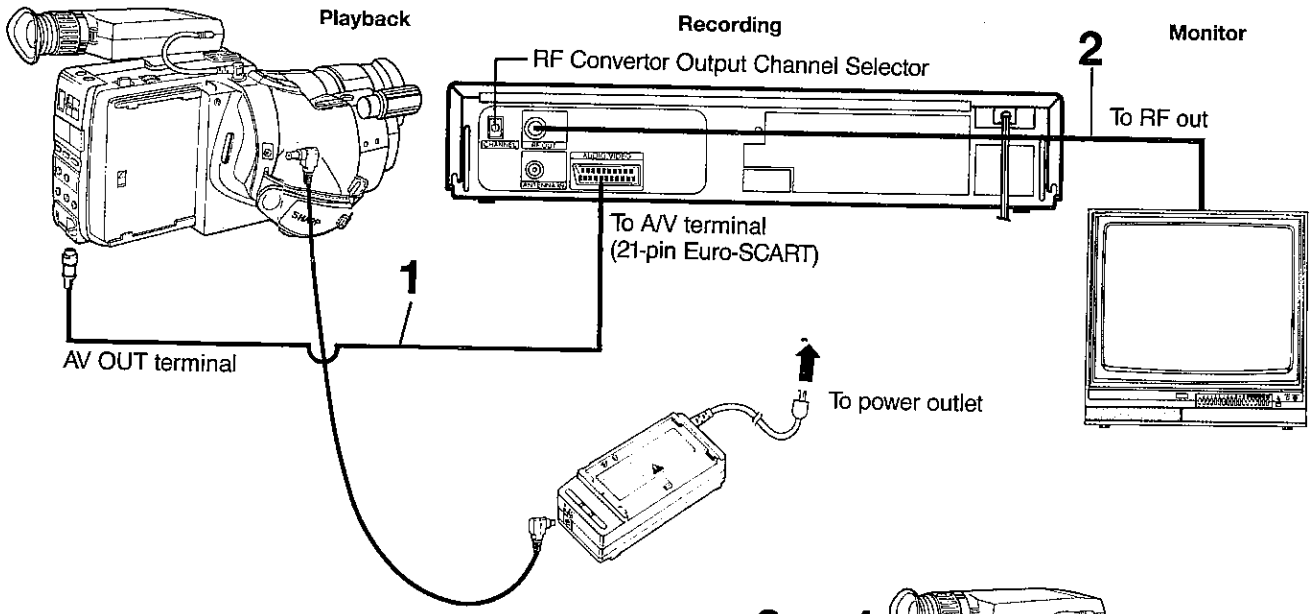


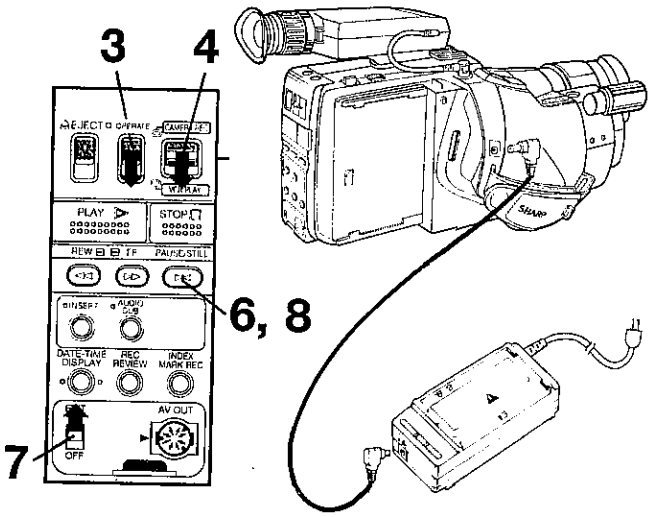
TV Playback

Tune the TV to the VIDEO or A/V channel and press the PLAY button.
To resume normal TV operation, tune the TV to another channel.

RECORDING TO ANOTHER VCR

Your SHARP Camcorder can be connected as the playback source deck for dubbing and editing a tape with another VCR. Unnecessary scenes can be removed, the overall length shortened, scenes moved and rearranged, and other effects added to make your tapes more effective and enjoyable.





1 Plug the A/V OUTPUT cable into the AV OUT terminal on the rear of the Camcorder. Plug the 21-pin A/V OUTPUT connector into the A/V terminal on the rear of the VCR.

2 Monitor recording on a TV connected to the VCR.

3 Connect a power source to the Camcorder and slide the OPERATE switch to ON. Now turn on the VCR too.

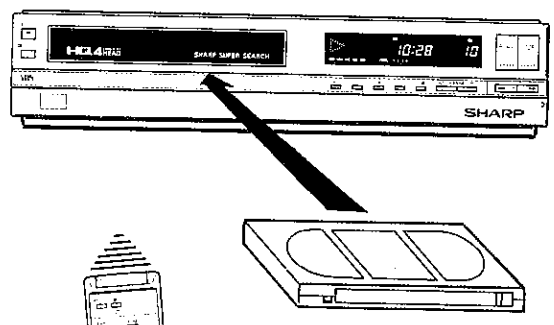
4 Slide the Camcorder CAMERA REC/VCR PLAY switch to "VCR PLAY" and insert a recorded tape.

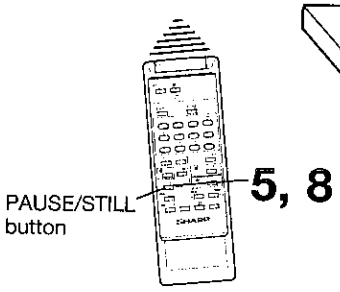
5 Insert a cassette tape with erasure protection tab intact into the VCR and put it into REC PAUSE mode.

6 Locate the scene to be copied from your Camcorder and press the PAUSE/STILL button.

7 Slide the EDIT switch to ON.

8 Press the PAUSE/STILL button on your Camcorder and on the VCR to begin playback and dubbing.





Note:
Picture quality inevitably deteriorates with each copy. The standard tape speed (SP) mode is therefore recommended when dubbing a tape.

EDIT CONTROL

Picture quality inevitably deteriorates each time you dub from the Camcorder to a VCR. Slide the EDIT switch on to minimize deterioration of picture quality. Use this while you edit your videos.

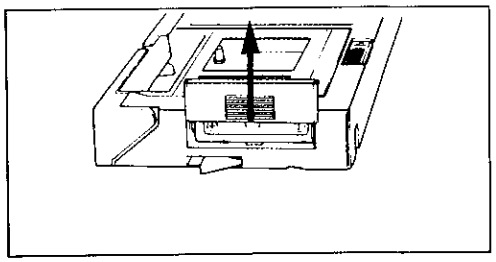
Note:
• Normally, the EDIT switch should be off.

USING THE CASSETTE ADAPTOR

The VHS compact video cassettes recorded with the VL-C750S can be played back with a standard VHS machine by using the provided VR-72CA Cassette Adaptor.
(A compact video cassette installed in the cassette adaptor is fully compatible with a standard VHS machine for both recording and playback.)

Inserting the Battery into the Cassette Adaptor
The VR-72CA Cassette Adaptor is battery operated by one "AA" battery

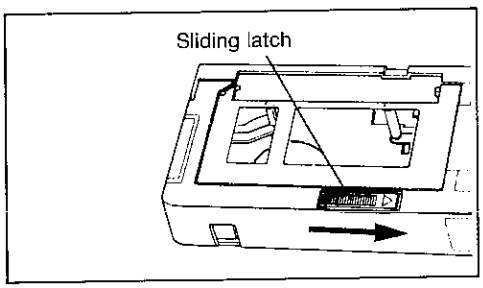
Remove the battery cover by sliding it up.
Install one "AA" battery and reattach the cover.



Inserting a Compact Video Cassette into the Cassette Adaptor.

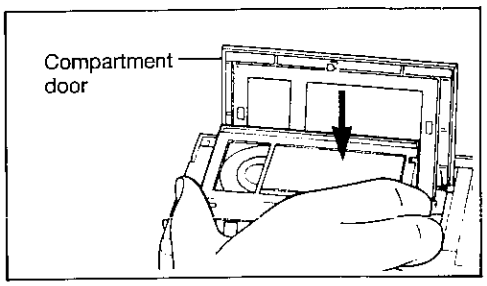
If there is slack in the video tape when inserting the compact cassette into the adaptor, the tape may become damaged. Take up slack in the tape.

1 Push the sliding latch in the direction of the arrow to open the door.



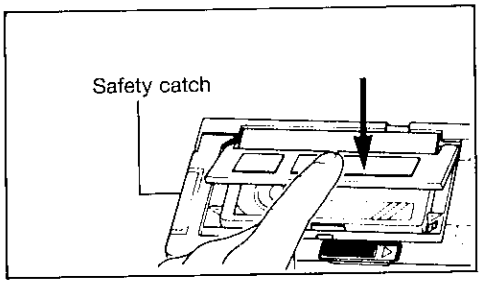
- The compartment door opens.

2 Insert the cassette as illustrated.



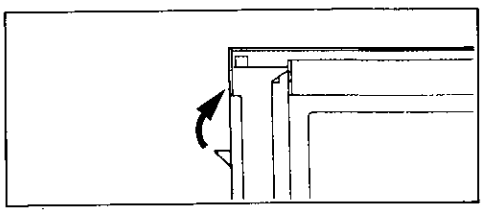
- Be sure to insert it squarely, not tilted.
- Be sure there is no slack in the tape.
- Do not touch the tape when inserting a compact cassette into the cassette adaptor.

3 Close the compartment door.



- The tape will be threaded automatically.

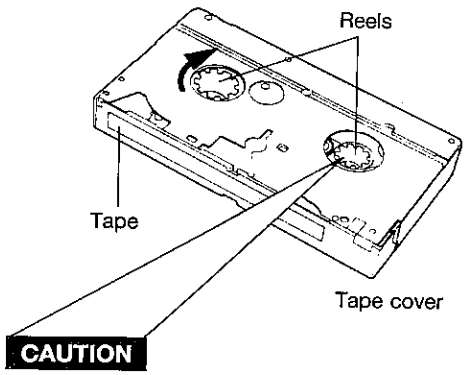
4 The safety catch will retract. This indicates that the tape threading is completed.



Caution:
During tape loading and unloading, do not touch the cassette's reels for safety and tape protection.

Caution:
Check the tape condition after inserting the cassette and tape loading is completed:

1. Check to see if there is any tape slack. (Do not open the tape cover.)
2. If there is tape slack, remove it by turning the reel in the direction of the arrow.



CAUTION

During tape loading and unloading, do not touch this reel for safety and tape protection.

Playing Back the Tape

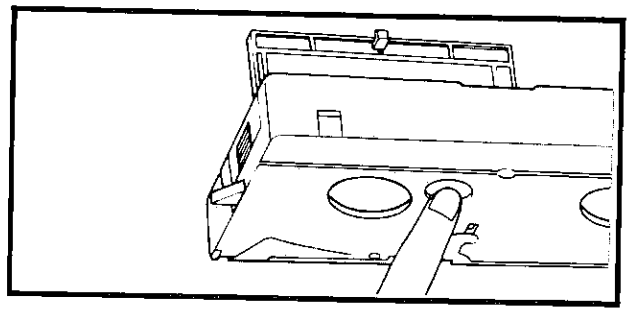
1. Load the cassette adaptor in a VHS deck in the same way as you would load a regular VHS tape.
2. Operate the VHS deck as usual.
   - Note that playback special effects can be performed using the VHS deck.
   - If noise bars appear, adjust the tracking of the playback deck. Be sure to reset the tracking control to its normal position when you have finished playing back compact VHS tapes.
   - Consult the VCR's operation manual for its operation.

Notes:

- During special effects playback (slow motion, still frame, etc.) the picture may vibrate or noise bars may appear on the screen.
- The protruding safety catch indicates that loading of the tape has not been completed. In this condition, NEVER attempt to load the cassette adaptor into a VCR, as this could damage both.
- Do not load and unload the cassette adaptor into a VCR repeatedly without allowing the tape to run. This will slacken the tape and thereby damage it.
- The cassette adaptor cannot be loaded upside down.
- After use, remove the cassette from the adaptor.

Removing the Compact Video Cassette

Slide the latch to open the door, then push up on the cassette to remove it, pushing on the cassette with your finger through the hole in the bottom of the adaptor.

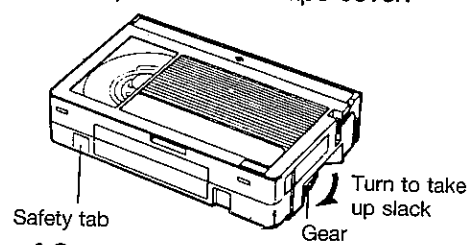


Notes:

- This cassette adaptor is precision-manufactured. Avoid violent vibrations or shocks. Do not drop or disassemble or modify it, otherwise malfunctions may result.
- When placing the cassette adaptor into its case, slide the cassette adaptor into the case safety catch end first.

Video Cassettes

- The VL-C750S employs only compact video cassettes carrying the VHS mark.
- Recording onto prerecorded tapes automatically erases the previously recorded video and audio signals.
- An inverted cassette cannot be inserted.
- Do not load and unload the cassette repeatedly without allowing the tape to run at all. This will slacken the tape and thereby damage it.
- Make certain before loading the cassette that the tape is not slackened. If there is any slack, turn the gear on the cassette in the direction of the arrow to take up slack.
- The cassette is equipped with a safety tab to prevent accidental erasure. When the tab is removed, recording is impossible. If you wish to record on a cassette whose tab has been removed, use adhesive tape to reseal the slot.
- To avoid excessive exposure to dust and fingerprints, do not open the front tape cover.



Storage of Cassettes

- Avoid exposing the cassettes to direct sunlight. Keep them away from heaters.
- Avoid storing the cassettes in humid or dusty places.
- Do not drop the cassettes. Do not expose them to violent vibrations of shocks.
- Do not expose the cassettes to strong magnetic fields (near a motor, transformer or magnet).
- Place the cassettes in cassette cases and position them vertically.

MANUAL FOCUS

In the following cases, it may be difficult to use the Autofocus, so you might want to focus the lens yourself.
1. When the object is not in the middle of the scene.
2. When you want the background or the front of the scene blurred.
3. When you want to have the beginning of the scene out-of-focus.

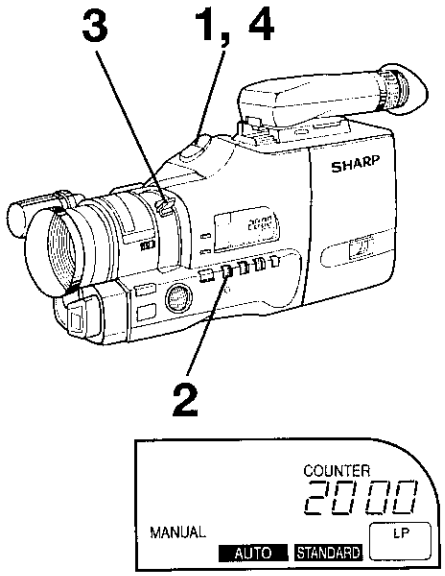
USING THE MANUAL FOCUS

1 Press T to zoom in on your subject.

2 Press the FOCUS button to select MANUAL FOCUS.

3 Turn the focus ring until the subject is focused.

4 Lightly press W and zoom out to compose the scene.



USING THE PUSH AUTO FOCUS

PUSH AUTO FOCUS is for focusing on a subject in the middle of the scene when in the MANUAL FOCUS mode.
Press PUSH AUTO FOCUS and the Camcorder will automatically focus on the subject in the centre of the viewfinder. After releasing the button, the Camcorder will automatically return to the MANUAL FOCUS mode.

WHITE BALANCE

The human eye can always see white correctly, but the Camcorder sees it differently depending on the light source. White balance ensures that the correct whiteness is recorded. Normally, just set the WHITE BALANCE to AUTO and you will get the proper white balance. However, in the following cases white balance should be adjusted manually.

Under the following conditions Auto White Balance may not function correctly.
- When mixing natural and artifical light. Beware of window scenes containing a mixture of artificial and natural light. Likewise all lighting should have the same colour temperature.
- When using special effects lighting.
- When recording a subject against a background with an intense hue.
- When there is insufficient light.
- When the colour temperature of a scene changes too rapidly or there is too much contrast.

In normal shooting, set the WHITE BALANCE select button to the "AUTO" position. If the colour is difficult to adjust when in the normal position, set the WHITE BALANCE select button according to the light source, as shown below.

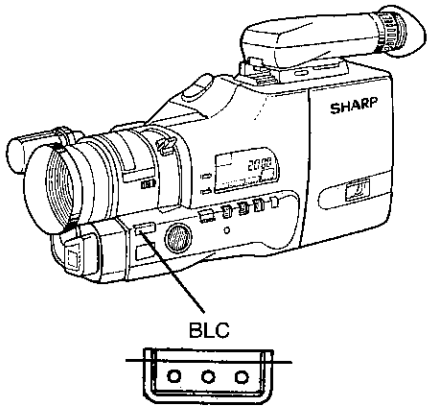
WHITE BALANCE POSITION	LOCATION	CONDITIONS
☀	Outdoor	Fair, sunny weather
▭	Indoor	Fluorescent lighting (4200°K)
☼		Halogen/Tungsten lighting

Note:
The fluorescent lighting position is fixed into the "white fluorescent light (4200°K)" colour temperature.

BACKLIGHT COMPENSATION

This Camcorder has Auto Iris which automatically adjusts to the light. However if the subject is backlit, the subject may appear dark.
In this case, you can prevent the subject from appearing dark by pressing the BLC (Backlight Compensation) button.

Note:
The Camcorder will automatically return to the AUTO IRIS mode after you release the BLC button.



HIGH SPEED SHUTTER

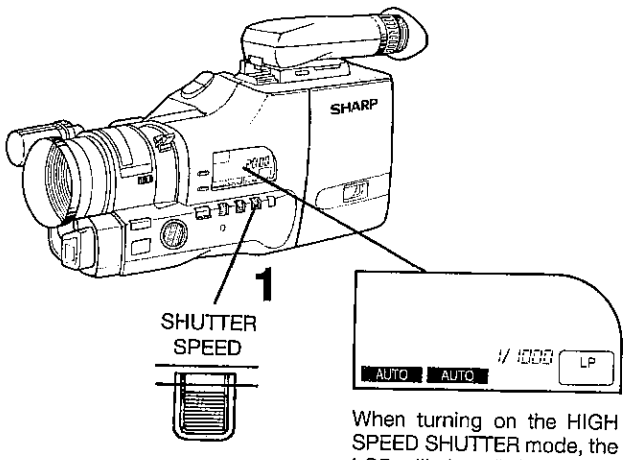
Use the HIGH SPEED SHUTTER (1/1000 sec.) mode when recording fast moving objects like sports (tennis, golf, etc.). When you playback the scene on a 4-head VCR, the playback picture will be clear even in the STILL and SLOW modes.

USING THE HIGH SPEED SHUTTER

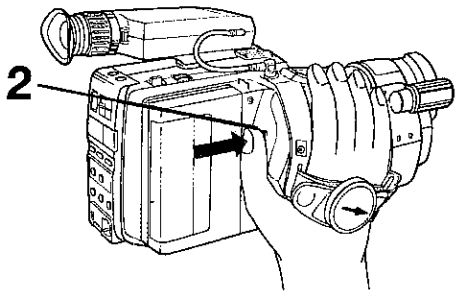
1 With REC PAUSE on, press the SHUTTER SPEED select button until "1/1000" is displayed.

2 Press the REC START/STOP button to start recording as normal.
Since High Speed Shutter is faster (by four f-stops) than normal, it requires more light. Use High Speed Shutter in good light, with minimum lighting of 300 lux, such as outdoors.

Note:
Avoid using High Speed Shutter under fluorescent lighting as this will cause flickering in the picture.



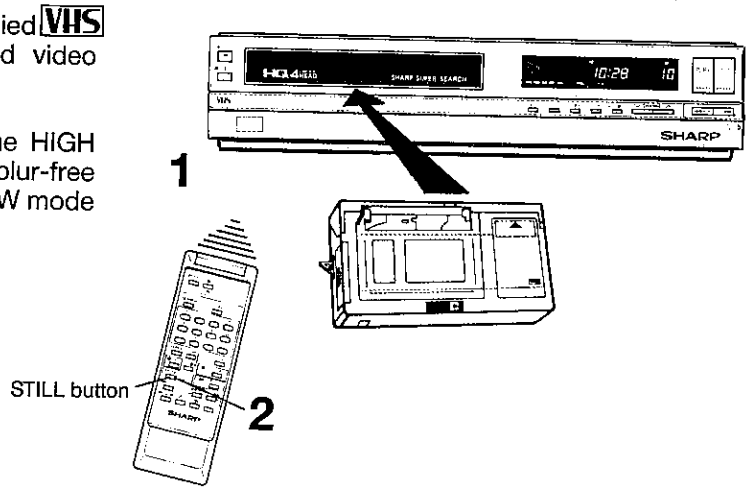
When turning on the HIGH SPEED SHUTTER mode, the LCD will show "1/1000".



PLAYBACK OF SCENES RECORDED WITH THE HIGH SPEED SHUTTER MODE

1 Place the recorded tape into the supplied VHS cassette adaptor into a VHS PAL 4-head video cassette recorder.

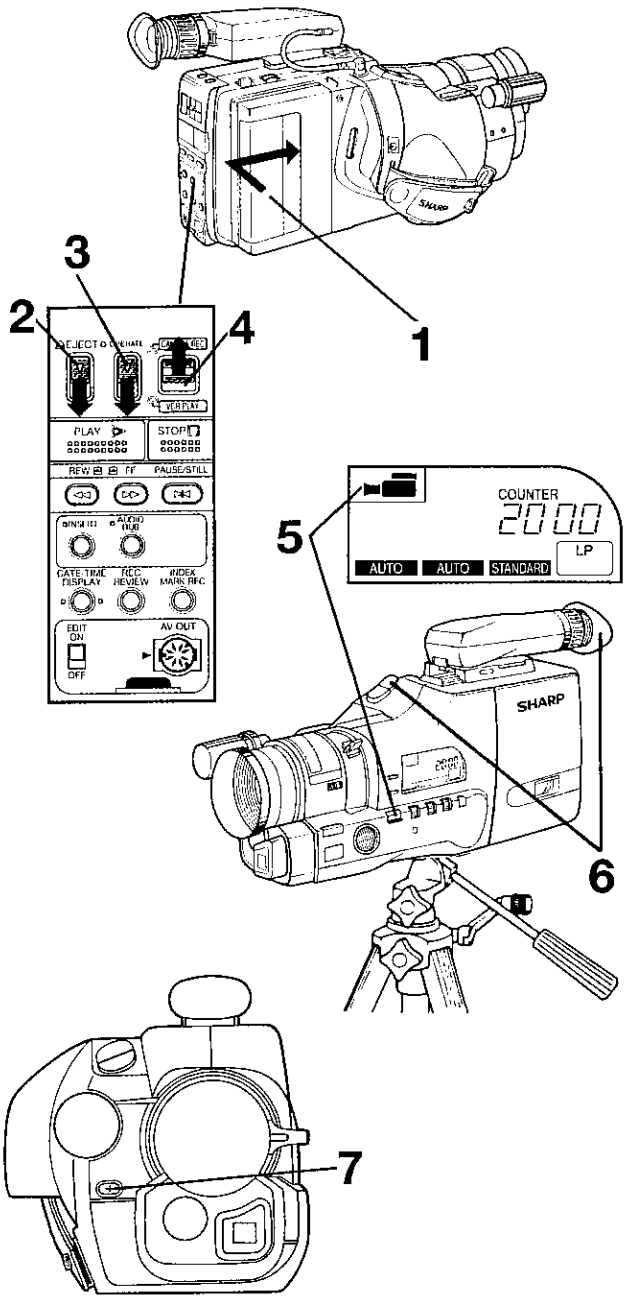
2 When watching scenes taken with the HIGH SPEED SHUTTER you can enjoy blur-free recordings even during STILL and SLOW mode playback.



SELF TIMER RECORDING

1. Attach the battery pack.
2. Press the EJECT button and open the cassette holder. Insert a video cassette with its tab intact with its window facing outward.
   Press the corner of the cassette holder marked "PUSH" until it clicks into place.
3. Mount this Camcorder on a stable tripod designed for video use, then slide the OPERATE switch on.
4. Set the CAMERA REC/VCR PLAY switch to the "CAMERA REC" position.
5. Press the FULL AUTO button, and check that is displayed in the LCD.
6. Pointing the Camcorder at the subject, press the Power Zoom button and adjust the angle of view.
7. Press the SELF TIMER button.
   The talent tally indicator flashes for 10 seconds, then the Camcorder will record for 20 seconds, then change to REC PAUSE mode. If you wish to record for an extended time, press the SELF TIMER button twice in succession.

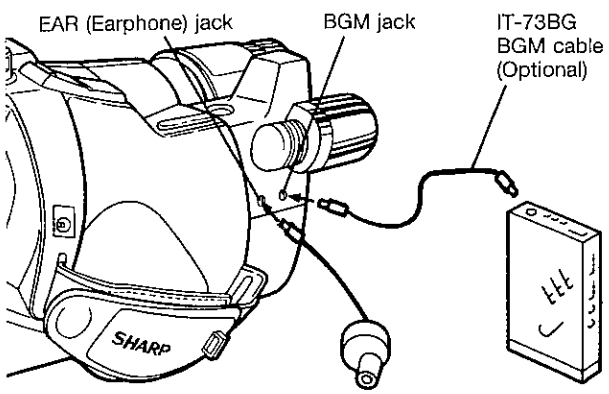
Note:
If you press the SELF TIMER button three times, the SELF TIMER is released.



BGM RECORDING

The optional IT-73BG BGM (Back Ground Music) cable lets you add music or record a commentary on the audio track. Monitor the volume of the audio with an earphone to check the volume. When recording from a stereo source, use a stereo-to-mono adaptor.

1. Plug the BGM cable into the BGM jack on the Camcorder and connect the other end to the headphone/output jack of an audio source (ie. cassette tape player).
2. Plug an earphone into the EAR jack and adjust the volume of the audio source.
3. Start the playback of the audio source so the audio will be recorded.



MACRO SHOTS

Small plants, insects, even photos in the family album can be recorded using Macro and enlarged to fill the screen. You can also use Macro to record titles for your videos.

Normally the lens can only focus on subjects that are more than 1.1 m away from the front of the Camcorder.

By setting the lens to Macro, you can manually focus on any subject within the macro range, 8mm-110 cm, right up to the front of the lens.

Mount the Camcorder on a steady tripod as the smallest movement is magnified when shooting macro subjects.

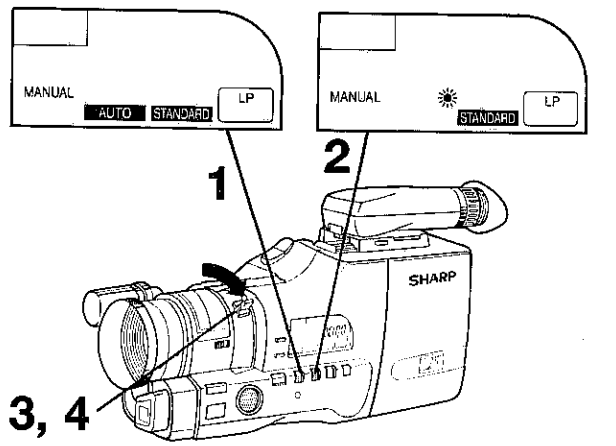
1 Set the FOCUS button to MANUAL.

2 Set the WHITE BALANCE button to ☀ or ▭ or ☼ depending on the incident light.

3 Hold the MACRO button down and turn and lock the zoom lever in the MACRO position.

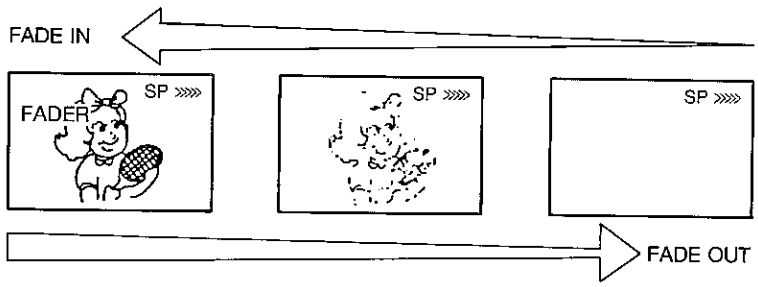
4 Focus by slowly turning the zoom lever.

Note:
Turn the zoom lever back to the normal focus range when you have finished with Macro.



FADE IN & OUT

With this Camcorder you can enjoy the special effect of fading in and out of the scenes in your recordings.



FADE IN

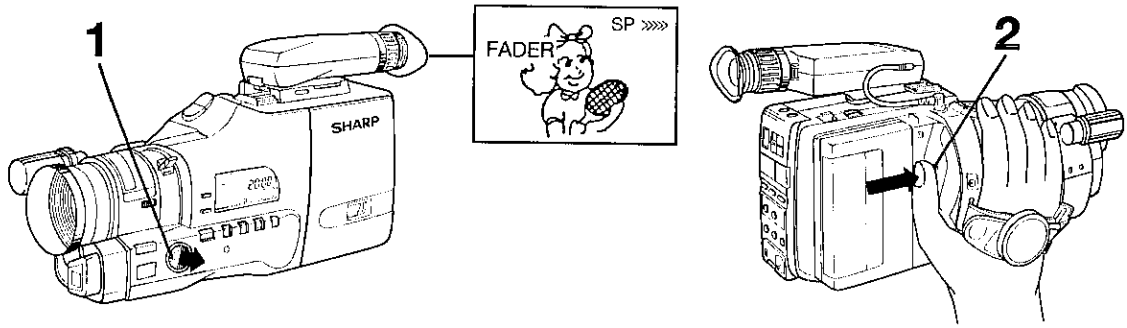
1 With REC PAUSE on, press the FADE IN/OUT button in the direction of the arrow. The viewfinder will display "FADER".

2 Press the REC START/STOP button to start recording. The viewfinder will turn white, and then gradually focus on the subject.

FADE OUT

1 While recording, press the FADE IN/OUT button in the direction of the arrow. The viewfinder will display "FADER".

2 Press the REC START/STOP button. The viewfinder will slowly turn white creating a fade-out of the scene.
(If you set to the REC PAUSE mode, the FADE will be released.)



INSERT EDITING FEATURE

With this Camcorder it is possible to cleanly insert such visual material as titles into portions of prerecorded video cassettes.
(The audio material, however, will remain as previously recorded; only visual material is changed.)

1 Slide the OPERATE switch to ON.

2 Slide the CAMERA REC/VCR PLAY switch to "VCR PLAY".

3 Press the EJECT button and insert a prerecorded video cassette. Push on the portion of the cassette holder marked 'PUSH' until it clicks into place.

4 Press the PLAY button.

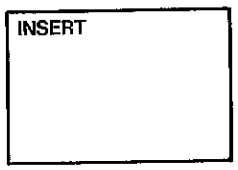
5 Press the PAUSE/STILL button at the point of the cassette where you want to stop the insertion.

6 Press the COUNTER/COUNTER MEMORY/LAP TIME button. The tape counter will show 'M' on the LCD display.

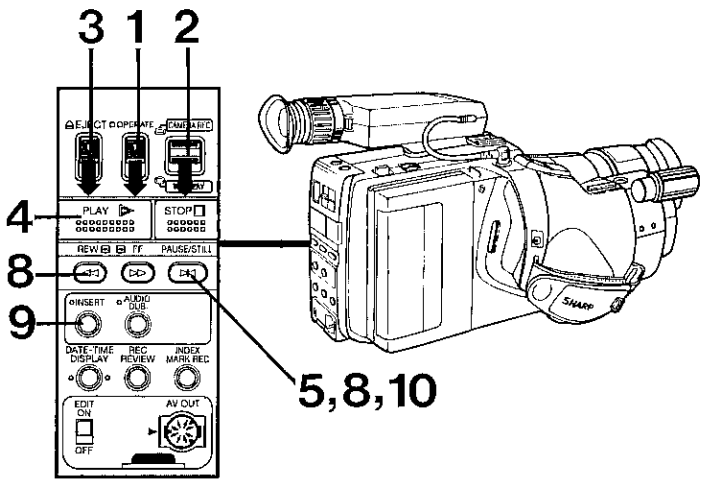
7 Press the RESET button to set the tape counter to "0000".

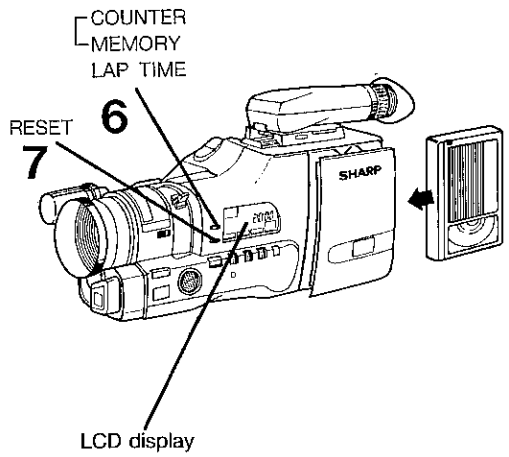
8 Press the REW (◀◀) button, then press the PAUSE/STILL button at the point you want the insertion to begin.

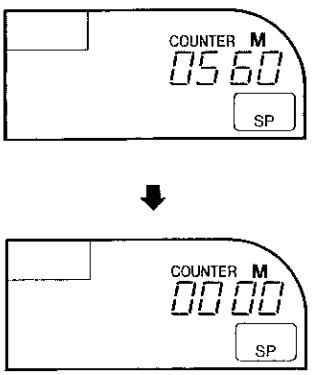
9 Press the INSERT button. The Camcorder is now ready for the insertion.



10 Press the PAUSE/STILL button to start the insertion. The visual material recorded at this time will be inserted.
(The insertion will stop automatically when "M0000" appears on the viewfinder.)



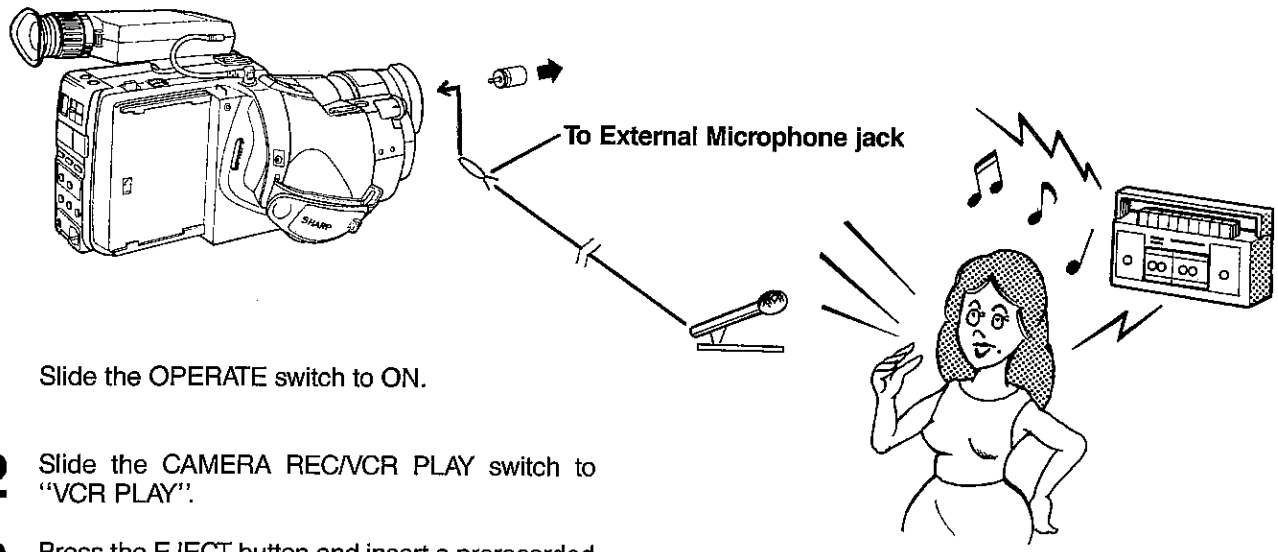




Notes:
- The portion of the previously recorded visual material which was replaced with inserted material will be erased during insertion. Be sure to check that you do not erase visual material that you want to keep.
- Do not press the COUNTER/COUNTER MEMORY/LAP TIME button during insertion.
- Inserted portions may have poor picture quality.
- Avoid repeating insertions at the same portion of the tape. Picture quality deteriorates with repeated insertions.
- If you press the PAUSE/STILL button during insertion, the insertion stops.
- This Camcorder uses a flying erase head during insertion to give clean and smooth transitions between edited portions of a tape.

AUDIO DUBBING FEATURE

With this Camcorder, audio material such as narration and music can be dubbed into previously recorded video cassettes through a microphone or by using BGM Recording function. (The visual material, however, remains as previously recorded; only the audio material is changed.)



1 Slide the OPERATE switch to ON.

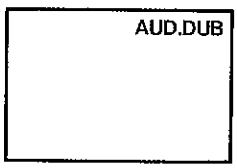
2 Slide the CAMERA REC/VCR PLAY switch to "VCR PLAY".

3 Press the EJECT button and insert a prerecorded video cassette into the cassette holder. Push on the portion of the cassette holder marked "PUSH" until it clicks into place.

4 Press the PLAY button.

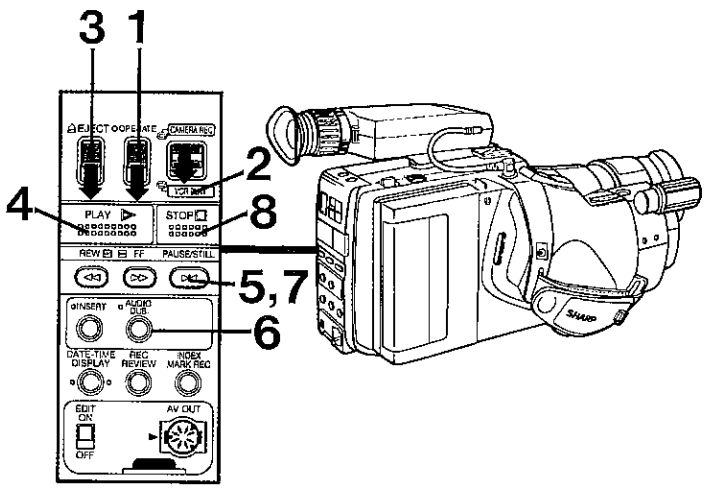
5 Press the PAUSE/STILL button at the point you want the audio dubbing to start.

6 Press the AUDIO DUB. button.



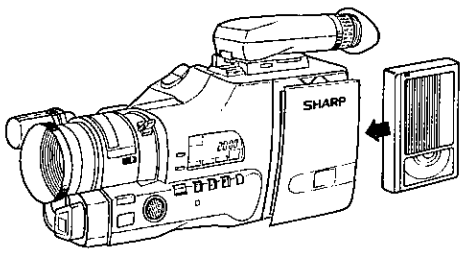
7 After the audio source is made ready for recording, press the PAUSE/STILL button to start the audio dubbing.

8 Press the STOP button to stop the audio dubbing.



Notes:

- The portion of the previously recorded audio material which was dubbed over will be erased during audio dubbing. Be sure to check the part you are dubbing over does not contain important audio material.
- When an external microphone is not connected, only the sound through the built-in microphone is recorded.
- When an external microphone is connected, only the sound through the external microphone is recorded.
- If high pitched sounds or howling emanates from the television set or audio equipment, turn their volume down or position the microphone away from speakers.



LIGHTING

For clear good-quality pictures you will need between 500 to 100,000 lux — you can record in less light, however the picture quality may suffer. Adequate lighting is also essential for correct white balance.

Brightness	Situation
	Blue sky
100,000 (Lux)	Clear day at noon (100,000) Clear day at 10am (65,000)
10,000	Clear day at 3pm (35,000) Cloudy day at noon (32,000) Cloudy day at 10am (25,000)
1,000	Cloudy day, one hour after sunrise (2,000) Clear day, one hour before sunset (1,000) Fluorescent light near window (1,000)
	Factory floor (700-800) Sales counter in department store (500-700) Bowling alley (500) Library (400-500) Office with fluorescent lighting (400-500) Fluorescent desk lamp (400) Flashlight at 1m (250)
100	Shop stairway (100)
10	During intermission at movie theatre (15-35) Cigarette lighter at 30cm (15-20) Candles on birthday cake at 20cm (10-15)
	Candlelight

Colour Temperature	Situation	Colour	White Balance Range
10,000 (°K)	Clear day	Blue	
9,000	Colour TV		
8,000	Cloudy day		
7,000	Rainy day		
6,500	Daylight fluorescent light		
6,000	Camera flashbulb		AUTO
5,500			
5,000	Blue photolamp	White	
4,500	White fluorescent light		
3,500	Off-white fluorescent light Tungsten photolamp		
3,200	Halogen lamp		
2,800	Tungsten lamp Iodine lamp	Yellow	
2,500	Acetylene lamp		
	Kerosene lamp		
2,000	Candlelight	Red	

Notes:
- These are approximations.
- For more precise colour balance — check the picture on a colour monitor and adjust the white balance until the colour is natural.
- Auto White Balance should normally be used in the colour temperature range shown above. However it will satisfactorily operate from 2500°K up to 9000°K, but the picture may become redder or bluer, respectively.

Video Lighting

Lighting is one of the most important areas in home videos. Also one of the most overlooked. Good lighting can often mean the difference between a great picture and a poor quality one. And lighting is essential for correct white balance.

In most outdoor situations natural lighting is adequate for home videos. Indoors the situation becomes more complicated. Artificial lighting is required and tungsten (or quartz) lamps provide the most natural of artificial light sources, while providing a constant colour temperature over a long life.

Good lighting is difficult to achieve and there are many problems to catch the unwary. Simply mounting one light or several lights on either side of the camcorder will only make your subject look flat and two-dimensional. To make a subject more interesting, use the lighting to model your subject and to add or create emphasis in a scene.

BEFORE REQUESTING SERVICE

Before calling for servicing, please check the following trouble shooting table.

SYMPTOM		POSSIBLE CAUSE	SUGGESTED SOLUTION
• Power	• No power	• Safety devices are functioning.	• Disconnect the AC adaptor cord, and then plug it into the wall socket again.
		• The battery pack is not charged.	• Charge the battery pack sufficiently.
		• The power source unit is not correctly connected.	• Connect the power source unit correctly.
		• A battery pack is attached to the AC Adaptor/Battery Charger.	• Detach the battery pack from the AC Adaptor/Battery Charger.
	• Power switches off soon after coming on.	• Depleted battery pack.	• Use a fully charged battery pack.
		• Dew in Camcorder.	• Wait until dew disappears.
• Recording.	• Power on but no image in viewfinder.	• Lens cap on.	• Remove the lens cap.
	• Can't record	• Recording prevention tab broken off from cassette.	• Cover the tab hole with adhesive tape or insert a cassette with its recording prevention tab intact.
		• CAMERA REC/VCR PLAY switch is set to "VCR PLAY".	• Slide the CAMERA REC/VCR PLAY switch to "CAMERA REC".
	• Poor colour	• TV not properly adjusted.	• Adjust the TV.
		• White balance not adjusted.	• Adjust the white balance.
		• Poor lighting.	• Apply additional lighting or correct colour temperature of lighting.
	• Fuzzy picture	• Dust or other foreign matter on lens.	• Clean the lens.
		• Not properly focused.	• Adjust the focus.
	• Camera picture is too dark	• The SHUTTER SPEED select button is set to "1/1000".	• Set the SHUTTER SPEED select button to "STANDARD".
• Playback	• No image appears.	• Improperly connected to TV.	• Reconnect properly.
		• The TV is not tuned to the RF converter's output channel (UHF30-39)	• Tune the TV to the RF converter's output channel (UHF30-39)
		• TV's TV/VIDEO switch is not at TV position (if the TV is equipped with AV input terminal)	• Set TV's TV/VIDEO switch to TV position.
	• Poor colour	• White balance not properly adjusted during recording.	• Make sure the white balance is properly adjusted during recording.
	• Playback is in black and white when the Camcorder is connected to TV.	• Tracking not properly adjusted.	• Adjust the tracking.
	• Video noise in image.	• Old or worn tape.	• Use a new tape.
	• Broken image	• Insufficient battery capacity.	• Recharge the battery pack.
• Cassette can't be inserted.		• Cassette is not right side up or is backwards.	• Check cassette positioning and reinsert.
		• Another cassette is in the unit.	• Press the EJECT button and remove.
• No tape movement in fast forward mode.		• Tape is already completely wound.	• Rewind to desired point.
• No tape movement in rewind mode.		• Tape is already completely rewound.	• Fast forward to desired point.

Note: This unit is equipped with a microprocessor. Its performance could be adversely affected by external noise or interference.
If this were to happen, turn off the power, and unplug this unit from the power source.
If the characters displayed on the LCD and the viewfinder appear to malfunction, open the lithium battery compartment's cover and press the RESET button. When the characters on the LCD become normal, resume operation.

SPECIFICATIONS

Format	VHS standard
Power source	DC 9.6V ⎓
Power consumption	8.5W
Signal system	PAL-type colour signal
Recording system	Luminance: FM recording Colour: Converted sub-carrier direct recording Conforms to VHS standard
Cassette	VHS-C cassette
Tape speed (SP)	23.39 mm/sec
(LP)	11.70 mm/sec
Recording time Max. (SP)	30 minutes (with EC-30 cassette)
(LP)	60 minutes (with EC-30 cassette)
VIDEO Output	1.0 Vp-p, 75 ohms, unbalanced (via AV out connector)
S/N ratio	45 dB (with Rohde & Schwarz noise meter)
AUDIO Output	−8 dBs, 1k-ohm (via AV out connector)
Microphone input	−65 dBs, high impedance, unbalanced
Pickup	1/2″-format CCD
Minimum required illumination	9 lux (at f 1.6)
Lens	f/1.6, f=8-96 mm, 12x power zoom lens with auto iris control and macro position, filter diameter 55 mm
Viewfinder	Electronic viewfinder with 0.7″ black/white CRT
Colour temperature switching	Switchable
White balance adjustment	Full-auto/preset standard
Operating temperature	0°C to 40°C
Operating humidity	Less than 80%
Storage temperature	−20°C to 60°C
Weight	1.5 kg (with viewfinder)
Dimensions	131(W) × 157(H) × 301(D) mm (incl. viewfinder)

AC power adaptor/Battery charger specifications

Power requirement	AC 110V — 240V, ~50/60Hz
Rated output voltage	DC 9.6V ⎓
Rated output current	1.2A
Charging system	Constant current, peak detection, timer controlled
Dimensions	68(W) × 42(H) × 146(D) mm
Weight	Approx. 400g

VHS Cassette Adaptor specifications

Type	VHS cassette adaptor
Dimensions	188(W) × 25(H) × 104(D) mm
Weight	235 g
Accessory	"AA"-size battery × 1

RF converter specifications

Output channel	UHF channels 30 ~ 39
Initial channel setting	Channel 36
Power source	DC9.6V ⎓ 45 mA (from CAMCORDER)
Dimensions	56(W) × 23(H) × 80(D) mm (excl. cable)
Cable length	1.2 m
Weight	Approx. 120 g

SUPPLIED ACCESSORIES

1 hour battery pack (BT-73) × 2
AC power adaptor/battery charge (AA-73S)
RF converter
75 ohm coaxial cable
A/V output cable (21-pin Euro-SCART)
VHS Cassette Adaptor (VR-72CA)
Compact video cassette (EC-30SD)
Shoulder strap
System case
DC output cable
"AA" battery for VHS Cassette Adaptor
Lithium battery

OPTIONAL ACCESSORIES

1-hour battery pack (BT-73)
BGM cable (IT-73BG)
Car battery adaptor/ charger (VR-P73CH)
VHS cassette adaptor (VR-72CA)
Pause remote control (VR-20ME)

Design and specifications are subject to change without notice.

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